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THE RELATION EXISTING BETWEEN ORGANIZED MEDICINE AND THE PUBLIC*

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It has occurred to me that the laity has never had a correct conception of the meaning of organized medicine in its truest sense, and I have thought that this is an opportunity to clarify in the minds of many what an organized medical profession stands for.

Quoting from Dr. William H. Welch in an address upon the fields of usefulness of the American Medical Association:

"Organized effort is a distinguishing mark of modern civilization. It is as essential for the advancement of science, of education, of social and industrial reform, of philantrophic endeavor, as for the promotion of commerce. With the remarkable progress of medical science, especially during the last three decades, man's power to control disease has been vastly increased, and the sphere of usefulness of the physician has been correspondingly widened, and with advancing knowledge will continue to expand. The skill and knowledge of the physician and sanitarian have acquired a new and ever increasing importance and significance in the movements for social amelioration, for improvement of conditions of labor and of living, for the conservation and most efficient utilization of the productive energy of the world, and for the reclamation of regions now yielding no return to civilization."

Organized medicine in America is essentially altruistic and democratic in its aims; democratic in that it is truly representative of the ranks and file of the medical profession.

The unit of the organization is the country or local medical society, the membership of which is composed of physicians in every community. The state association is made up of an aggregation of these local societies; its policies are determined and it is controlled by a house of delegates elected from each of the county societies.

The American Medical Association is made up of representatives from the constituent state associations, and its policies are under the control of a house of delegates elected from each of the state associations.

The American Medical Association has divided its scope of work into a number of departments in order that the work may be done more efficiently. These departments are as follows:

Council on Medical Education and Hospitals.

Council on Pharmacy and Chemistry.

Bureau of Legal Medicine and Legislation.

Bureau of Health and Public Instruction.

Bureau of Public Investigation.

*President's Address to the Mississippi State Medical Association at the Sixty-third Annual Session, Vicksburg, May 13, 1930.

Each of these departments has a very definite work to perform.

From its inception in 1847 the American Medical Association has striven for high altruistic ideals, the education of the physician and the protection of the public. In 1904 it was reorganized and article two of its constitution and by-laws states "The objects of the association are to promote the science and art of medicine and the betterment of public health." During the twenty-five years which has elapsed since its reorganization the committee on Medical Education and Hospitals has made rapid strides toward the attainment of their ideals of medical education, and at the same time there has gone hand in hand for the past ten years an effort toward the improvement of hospitals and hospital facilities, making them better equipped for the care of the sick, and for the training and instruction of future members of the profession.

The committee on Pharmacy and Chemistry examines all the newer preparations of medicine, and when necessary analyzes preparations that are of doubtful physiological value, or whose chemical formula is not definitely known. If these newer drugs comply with all requirements as regards physiological action, potency, methods of exploitation, etc., they are accepted by the committee as being non-official but acceptable.

Naturally, in a country such as ours, where legislation affecting the practice of medicine, sanitary, and public health requirements is being constantly introduced before the various law making bodies, it is essential that the public and the profession have someone watching these various developments, so that the standards of public health, of medical education, and the practice of medicine shall never be knowingly lowered. Originally the American Medical Association was organized to elevate the standards of medical education. This has always been one of its most important functions.

The Bureau of Health and Investigation has made and is making prolonged, persistent, and untiring efforts toward the maintaining of high standards of medical education and standards, also the education of the public as to all matters of a sanitary or medical character which maybe of public interest.

The Bureau of Investigation has done more to eliminate the patent medicine evil and to abolish quackery, than any other one organization in the history of American public life.

It is our purpose today to acquaint you with some of the workings of this organization in its efforts to elevate and maintain the high ideals and standards of medical practice, and the protection of the public from imposition and quackery. Not all has been accomplished at one fell stroke, but it has been a matter of years spent in persistent effort in the education of the public and the medical profession that has resulted in a higher standard of medical education and consequently of the practice of medicine.

With the assistance of the Association of Medical Colleges the American Medical Association has been enabled to set a standard of medical education that has practically eliminated those schools which were formerly maintained as private institutions for pecuniary profit and has elevated the practice of medicine to a higher level of scientific knowledge than ever before in the history of the country. Its efforts have been multiform. While raising the standards of medical practice, it has by education of the public, and with the co-operation of the press of the country largely eliminated the foisting of nostrums upon the laity.

Compare the advertising pages of any modern newspaper of today with the same paper of twenty-five years ago and note the marked absence of advertisements for the various patent medicines with their

specious claims of curing anything and everything from the toe ache to the headache. Behind the scenes of this improvement has been an active body of men investigating drugs prescriptions, and remedies offered to the public, and exposing by the medium of publicity those that smelled of quackery. No less so has the Council on Pharmacy and Chemistry acted as a bulwark of protection to the practitioner of medicine in the investigation of new pharmaceuticals offered for the prevention of disease. Today manufacturers of pharmaceuticals offer the products of their laboratories for the approval of this committee and enable the medical profession to know the chemical formula, physiologic action, and therapeutic indications of all preparations accepted by it. If preparations submitted to it do not come up to the standard required they are reported as nonacceptable and the reasons for their rejection given.

Do not think for one moment that this cleaning out of the muck and mire of quackery and deception has been accomplished without strong opposition, and it has only been by taking the public into its confidence and being armed with indubitable facts that the American Medical Association has been able to bring about such remarkable changes in the attitude of the purveyor of nostrums in their relations to the public.

Believing in the education of the public as a whole and that it should be kept posted as to the important facts of hygiene and sanitation and right living, the American Medical Association began the publication in 1924 of Hygeia. Hygeia is a publication non-technical in character in which various phases or problems incident to health are placed before the public in an easily comprehensible manner. It has grown steadily in favor both in schools and in the home.

So much for the activities of the parent association which as any impartial observer will have to admit have been altruistic and idealistic in their conception and execution. These activities have been expensive. There is at present maintained at the headquarters of the American Medical Association some four hundred employees. Who has borne the brunt of this expense? The public has not been asked for a dollar. Ninety-five thousand members of the medical profession have contributed by their subscriptions to the Journal of American Medical Association, and the remainder of the expenses have been defrayed through the income from legitimate high-class advertisements in this Journal. The American Medical Association is an altruistic organizaton. It is not maintained from profit, nor for glory, but for the elevation of the standards of medical education, the protection of the public against imposition, and the education of the public as to the laws of health and their application in everyday life.

What as to the activities of the second division of organized medicine in the State Medical Association? I quote from the second article of the constitution and by-laws of our state association:

"The purpose of this association shall be to federate and bring into one compact organization the entire medical profession of the State of Mississippi, and to unite with similar associations in other states to form the Amercan Medical Association with a view to the extension of medical knowledge, and to the advancement of medical science by the elevation of the standards of medical education, and to the enactment and enforcement of just medical laws, to the promotion of friendly intercourse among physicians and to guarding and fostering of their opinion in regard to the great problems of state medicine, so that the profession shall become more honorable and capable within itself, and more useful to the public in the prevention and cure of disease, and in the prolonging of the adding comfort to life."

The Mississippi State Medical Association is not simply a debating society, nor an organization for the delivery of scientific papers, although these do play an important part in the elevation of the standards of the practice of medicine. All of the benefits of public health and hygiene in the state today are directly attributable to organized medicine as represented by the Mississippi State Medical Association. The Mississippi State Board of Health is the creature of the Mississippi State Medical Association. The State Association of necessity has to assume the responsibility for this, its own child, and we feel should be accorded the credit which attains to public health activities in our state.

I quote from an address by Dr. C. C. Applewhite: "The status of the public health program in Mississippi today is due largely to the foresight, vision and zeal of the members of the State Medical Association. The progress which has been made in the field of public health must justly be credited to this association, likewise the shortcomings and failures in the public health movement must be charged to the same source. The State Board of Health is the child of this association since all of the members of that board, with one exception, are members of, and were nominated by this association.

The majority of the members of the central staff, selected by this board of your own choosing, and the medical field staff are members in good standing of this association. Thus it can be readily seen that this association, in return for the privileges accorded it by law of selecting the members of the State Board of Health, has taken unto itself the grave responsibility of promoting and leading in the matter of protecting the public health. Public health progress can not and should not outstrip the wishes of this association. Fortunately for this state the medical profession has always led constructively in the field of public health. So long as this constructive leadership is maintained by the profession the general public will gladly follow."

No one can but say that this board, representing organized medicine justly, warrants the confidence placed in it.

Again it has always been necessary in order to maintain the highest standards of medical education and to protect the public from imposition, for organized medicine to scrutinize carefully all legislation introduced for the control of the practice of medicine. This is no selfish motive. The object of medical legislation is not for the benefit of the physician. To quote from an address by Dr. G. H. Simmons: "What is the object of organized medicine? Is it for the benefit of physicians or for the protection of the public? There is no reason why there should be any special legislation for physicians any more than for any other class of citizens, and for that matter no such legislation has ever been attempted. We have no right to, neither do we, ask the state for legislation for our sole benefit. The ultimate object must be the public good, and this fact must always be recognized by those who formulate the law?"

I bring this phase of organized medicine before you because there is never a meeting of the legislature that there is not an attempt made to lower the standards of our medical practice laws, and to let down the bars to quacks and quackery. During the present session of the legislature House Bill No. 738 was introduced as an amendment to the present law. It eliminated the

subject of Pathology altogether in a man's qualifications. A knowledge of this subject is certainly most essential to anyone who attempts to practice the healing art. Again this proposed amendment did not require even that a man should be a graduate of a medical school to come before the examining board. I doubt if but very few of my audience were cognizant of this proposed legislation. It is necessary that someone be constantly on guard for the protection of the high standards for which we have labored for years. Our state association has a committee on legislation and to keep informed as to measures which are inimical to the health and good of the community.

To come nearer home and to bring you into direct contact with your individual physician, he is a member of his county medical society, the cornerstone of organized medicine in this country. He it is to whom you turn in time of need, sickness or pestilence. He has been made much more capable, and a more scientific practitioner of medicine as a result of his affiliation with organized medicine individual'y, and the community as a whole has benefitted thereby. Organized medicine maintains the high ideals of Hippocrates, and is essentially altruistic in all of its actions.

It has been aptly said that, "It may be stated without fear of contradiction that the American Medical Association, with the support of its component county and district societies and its state associations has done more to raise the standards of education in our medical schools; more to further post-graduate medical work; more to promote the aims and ideals of physicians everywhere; more to awaken medical and pub'ic interest in public health matters; and more to further human health and consequently human efficiency than any other single agency in human history."

CARTILAGINOUS AND OSTEO-CARTILAGINOUS RIB GRAFTS IN THE CORRECTION OF CERTAIN DEFORMITES OF THE NOSE.*

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NEW ORLEANS.

Facial disfigurement of even moderate degree carries with it a certain social stigma that becomes a definite handicap in an individual's relation with his fellows. When such deformity approaches the unsightly and grotesque it assumes an economic angle of no negligible importance and one which merits our interest and surgical consideration. Earning capacity is curtailed, ambition and initiative are hampered, the outlook and attitude toward life are, in almost every instance, reflexed by degrees of mental depression, a complex of inferiority and a feeling of humility which robs him or her of the zest of living and the incentive to progress and improve.

The nose presenting the prominent feature of the face is most frequently exposed to trauma and its resulting deformities. Slight alterations in its normal shape and contour brings perceptible changes in facial expression and appearance. The loss of the skeletal structure of the nose by fracture, infection, disease or by surgical removal is the reason for many such deformities and the reconstruction and fil'ing out of these resulting deficiencies, by means of autoplastic transplant, is the surgical problem which this paper purposes to deal.

This represents constructive and reconstructive surgery and is not to be confused with the so-called "beauty surgery," such as face lifting, breast elevation and the like, with which the essayist has small sympathy and which he considers, in the main, as useless and unnecessary surgery.

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*Read before the Orleans Parish Medical Society, February 25, 1929.

†From the Surgical Service, U. S. Marine Hospital.

Some fifteen years ago, plastic surgery of the nose was confined almost entirely to prosthesis with metallic substances, such as gold, silver, aluminum and steel, and those of which paraffin and gutta percha are examples. With use and experience these substances have been abandoned and relegated to the obsolete since they, in the most part, behave as foreign bodies and are either thrown off by the tissues themselves or because of irritation or infection are necessarily removed by the surgeon.

During the late war and in the post war rehabilitation period the use of organic transplants received its greatest impetus. The hideous mutilating wounds of the face incident to modern warfare produced a great source of material for this work and presented opportunity for wide experiment in supplying supporting structure for the face, jaw and nose.

Of the organic materials employed, ivory, which most closely resembles the structure of bone, was introduced by Joseph of Germany, who believes it to be superior to bone. There are some rather well grounded objections to this substance however, in that it is a very hard material and consequently awkward and difficult to shape and manipulate, except by the aid of specially devised accesories; it must be accurately cut and in many instances has not been well tolerated by the tissues. When a large quantity of material is required as in the complete reconstruction of the entire nose, it finds its greatest field of usefulness.

The employment of osseous and cartilaginous grafts or a combination of them is not new, but with continued experience and a sufficient amount of patients to work with, and due to modern methods of asepsis, the manner of their use has improved to a point where they are generally conceded to be the most satisfactory agents at our disposal. Experience has also taught us that the autoplastic grafts are far more satisfactory than the homologous transplants, although these have been employed with some success.

The German surgeons are favorably disposed to bone transplants with its accompanying periosteum. The criticism of bone alone lies in the fact that success depends essentially on its intimate contact with the nasal or frontal bones and that the most painstaking and rigid sepsis is mandatory for a satisfactory outcome since bone is notoriously susceptible to infection. Its vitality is weak and once infection develops the loss of the entire graft is almost certain to follow. The nasal passages are very difficult to sterilize, the normal bacteria flora being numerous, and where the endo-nasal surgical approach is employed the danger of contamination is increased.

The tendency for bone transplants in the nose to undergo absorption has been pointed out by Davis, Maliniak, Sheehan and others. Davis, of Baltimore, who carried out extensive investigations along this line says: "With or without periosteum, the osseous graft is absorbed more or less quickly and it is impossible to predict the rate of absorption." In my own experience with osteo-cartilaginous graft, I have found these observations to be at least partially true. (Case No. 1.) It has been suggested by Davis and others that the reason for this absorption lies in the fact that the graft is only attached at its upper end and that its vascular supply is only problematical; also that bone grafts elsewhere in the body are either inlaid or onlaid in an intimate bony environment on all sides, so that their take is more likely to occur. While Israel as far back as 1895 used bone grafts derived from the tibia for nasal transplants, the ribs, because of the spongy nature of their structure and the fact that they are more accessible and more easily shaped and trimmed, according to the indications of the case, are undoubtedly the best source of supply.

Cartilage was first proposed by Von Mangold in 1899 for repair of the larynx and trachea and by Nelaton later for the correction of deficiencies in the bony structure of the nose. It has decided advantages

over bone in that it is infinitely easier to handle and can be molded, shaped and carved to conform to almost any depression of modern size. Its vitality is far greater than bone; it has no tendency to absorption and in the presence of ordinary infection it usually weathers the storm without loss of substance. (Case No. 4.) Its surgical approach is not difficult and it is available in sufficient quantities in most cases. Whether these grafts take as such or whether they become surrounded and encysted by fibrous tissue, I am unable to state. It is still an open question, but in a limited experience in my own work it has remained in place without change in size or shape, absorption or shrinkage, for two years. (My oldest case.)

Osteo-cartilaginous grafts were first recommended by Carter and are indicated where the space in the nose is large and where sufficient cartilage is difficult to secure. It has another advantage in those cases where deficiency extends into the base of the nose as it gives a harder, firmer support to the bridge. I have employed this type of graft several times and found it met the indications.

In most all of these traumatic deformities of the nose the air passages are imposed on and a submucous resection necessarily precedes the cosmetic repair. In the seven cases which I wish to show you this evening this was necessary in all but one.

The graft requires about two weeks to take and by the end of four weeks is secure and well immobilized in the tissues where placed. The photographs following correction were taken from six weeks to two months after correction. My follow-ups have been fairly good and most of the cases I have to show you I have seen at intervals since their discharge.

OPERATIVE TECHNIC.

I have employed in my own cases the endo-nasal approach which recommends itself both because of a hidden scar, as well as for accessibility and for drainage, should such be necessary. This incision is preferable to the old transverse incision of Von Mangold which is placed at the base of the nose. The objection to Von Mangold's

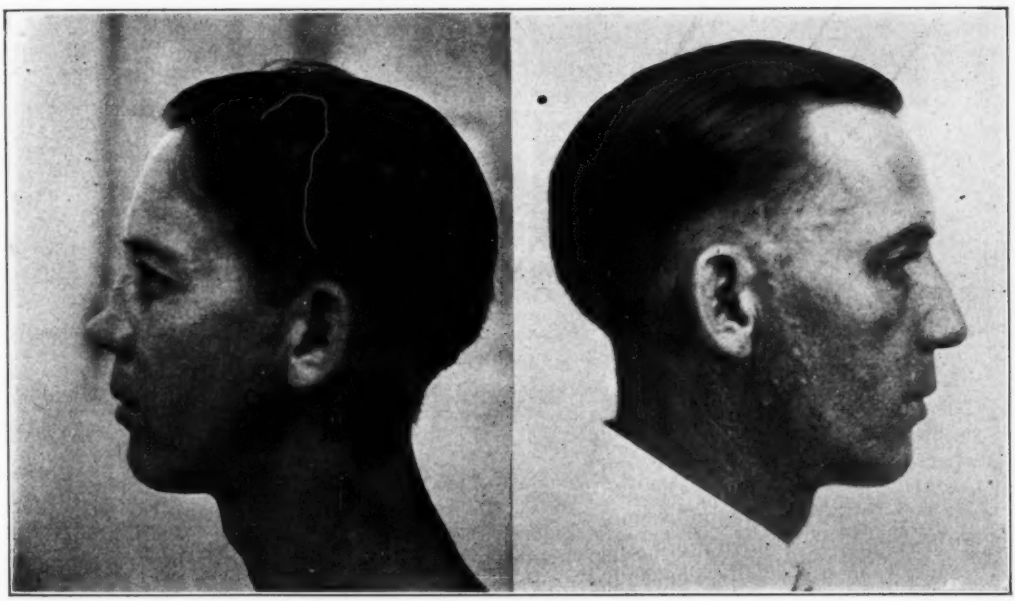

Fig. 1-A.—(Case No. 1) Before operation.

Fig. 1-B.—(Case No. 1) Following operation. Osteo-cartilaginous graft.

incision is that it runs counter to all laws of surgical drainage and where the undermining of tissues, a conspicuous part of this type of surgery, is performed, there is always some serous ooze which, if left undrained, harbors infection. It is true that the operative wound in this external method or its modifications results in only a slight scar, provided primary union results. In the face of infection primary union does not follow and an embarrassing scar may follow. Frank and Strauss report such a case in which a secondary plastic operation was necessary to correct an ugly post-operative scar. These two surgeons propose the external route but suggest an incision at the inner angle of the eyebrow, over the superciliary ridge. In this way the scar is hidden by the eyebrow. Another external approach suggested by Monks consists in making a linear cut under the tip of the nose and tunnelling upward through the soft tissues. Gillies, of England, a great plastic surgeon, makes his incision at the philtrum, detaches the skin which is thrown upward and secures a canal under this pedicle. In this way he obtains more operative space to work in.

The endo-nasal incision first suggested by Roe consists of an incision at the lower border of the triangular cartilage above the muco-cutaneous junction. By means of a periosteal elevator the mucus membrane and periosteum are separated, the elevator being carried toward the mid-line and upward, tunnelling through the tissues. The elevator is now reversed toward the tip of the nose to make a suitable bed for the reception of the lower end of the graft. This is followed by a curved Mayo scissors which is opened and closed in order to stretch the tissues.

Fig. 2-A.—(Case No. 7) Before operation.

Fig. 2-B.—(Case No. 7) Following operation. Cartilaginous graft.

Preparatory to the incision the nasal vestibule is first cleaned of hairs and all debris removed. Alcohol followed by tincture of iodine, mercurochrome or 2 percent picric acid, is applied internally throughout the nasal cavity and externally over the entire nose, upper lip and portion of the face within the operative area. A nasal speculum is introduced into the nose and removed following the incision. The nostril is packed rather lightly with loose gauze to prevent blood from trickling back into the throat. Following the tunnelling of the tissues pressure is maintained by an assistant over the dorsum of the nose to control hemorrhagic ooze, and this is continued until the costal cartilage has been removed. I have been using the seventh, eighth or ninth rib for my grafts. The incision is made over the rib selected, near the sternum in the case of the seventh and eighth rib and directly over the ninth or first floating rib, when this is employed. The cartilage is removed with its perichondrium. It has been recommended that the perichondrium be left intact for firmness although Davis believes it makes little difference. Care must be exercised in removing the cartilage or rib to prevent injury to the pleura. Closure of this wound is made as in any other costal incision. The length of the graft removed depends, naturally, on the size of the defect, but more rib is taken than is actually necessary for allowance in shaping. The graft may be placed in warm normal solution until ready to use or is directly introduced in to the nasal wound. An objection to the endo-nasal incision has been raised by some operators, who state that the operative field is cramped and that it is more difficult to obtain a perfectly straight alignment of the graft. I have

Fig. 3-A.—(Case No. 6) Before operation. Nasal bone practically destroyed.

Fig. 3-B.—(Case No. 6) Following operation. Cartilaginous graft.

found this to be true in my earlier cases (Case No. 2), but with more experience and a wider undermining of the tissues in all directions this difficulty has been minimized. With the graft in place the wound is closed by interrupted sutures of linen or silk which are removed on the second or third day, should drainage be necessary. The nasal vestibule is plugged with a loose gauze pack, two transverse strips or adhesive are placed firmly over gauze over the dorsum of the nose to immobilize the graft. This is all the dressing I have found necessary.

ANAESTHESIA.

In the average case and unless the patient is unusually apprehensive, both the nasal work and the resection of the costal cartilage is readily accomplished under local anesthesia. I have been using 1 percent and a ½ percent novocain with adrenalin, 10 mms. to the ounce. Ether narcosis has been resorted to several times, particularly where refracture of the nose is necessary or where the defect is high up on the bridge.

CASE HISTORIES.

Case 1. Dec., 1927. (Osteo-Cartilaginous Graft.) F. H., 36 years, white, male.

History of multiple fracture of nose at various times—total six. Following last fracture, nine years ago, an operation was performed to relieve obstructive breathing. Some months later patient noted that nose was becoming more and more depressed and this has progressively increased. He is very self-conscious about his appearance and willingly submits to operation for its correction. There is no history or suggestion of syphilis. Wassermann negative.

Operation. Local anaesthesia, 1 per cent novocain with adrenalin. Incision made at inferior border of triangular cartilage. Mucous membrane and periosteum separated with periosteal elevator, soft tissues under skin undermined and a bed made in the tip of the nose by means of forceps and Mayo scissors for reception of lower end of rib transplant. Eighth rib with its carti-

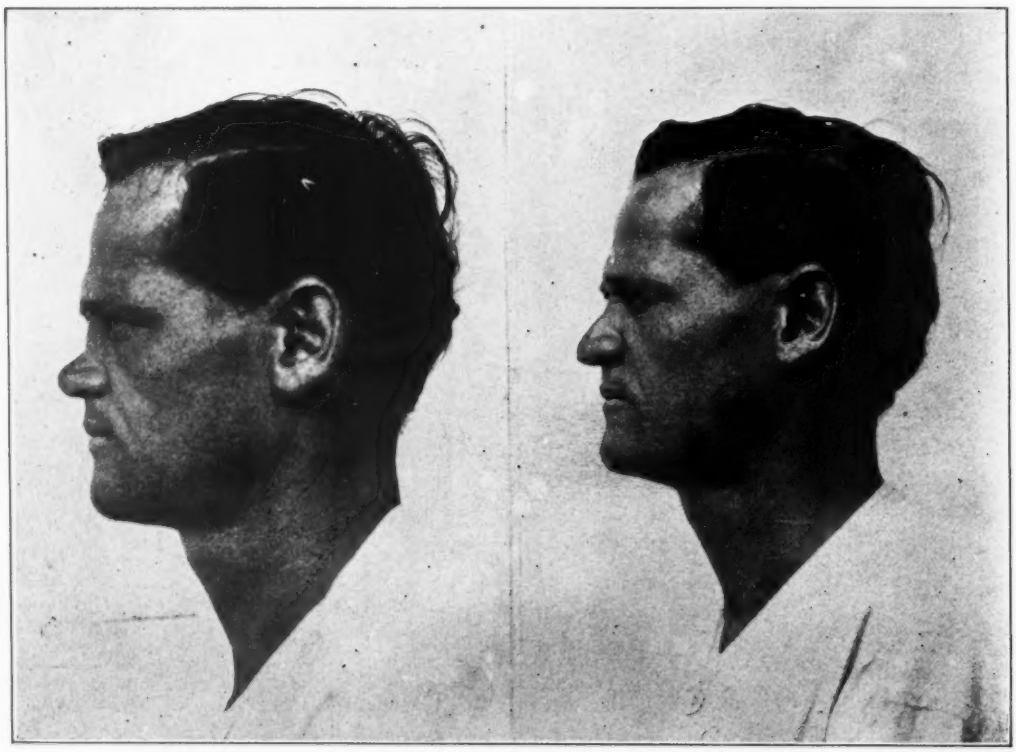

Fig. 4-A.—(Case No. 3) Before operation.

Fig. 4-B.—(Case No. 3) Following operation. Cartilaginous graft.

lage resected, measured and shaped to meet the indications and inserted into endo-nasal wound.

Recovery uneventful but at the end of the second week a swelling appeared at the upper end of the graft which was definitely fluctuant. Some few days later this was relieved by external incision. Cloudy, serous, oily material was recovered, but no infection was present. The stab wound promptly healed and the graft is a successful take.

Patient has been seen within the last three months. Graft in place, firm and presents no further evidence of absorption.

Case 2. July 11, 1927. (Cartilaginous Graft.) J. B., 49 years, white, male.

History of extensive depressed fracture in 1918. In 1921 a piece of cartilage was removed by operation. Because of appearance he comes for cosmetic repair, if such is possible. Examination shows a protruding mass on the left side of the nasal bone, marked depression of the nasal septum and over the right side of the base of the nose.

Operative procedure same as in case 1, except that a resection of the bony mass was performed by chisel, followed by file. Post operative condition was excellent for 10 days when a definite bowing and lateral displacement of the graft was noted. This was probably due to the fact that the patient removed the immobilizing dressing too soon and perhaps also to contraction of the perichrondrium of the graft noted in cases before by Maliniak and others. No infection present. Patient not seen since discharge six weeks after operation.

Case 3. Nov. 4, 1927. (Osteo-Cartilaginous Graft, Ninth Rib). J. A., 53 years, white, male.

History of injury in 1922 when block and tackle weighing about 7 lbs. fell from rigging of ship, a distance of about twenty feet, striking patient in nose. As a result nose was badly fractured with marked displacement. Patient saw a doctor 22 days later but no treatment was given. Two months later patient consulted another doctor in New York who told him it was too late to help him. Two years ago a sub-mucous resection was performed in Porto Rico. Examination by Dr. Padgett, Marine Hospital, on November 7, 1927, disclosed a remaining deviation of the nasal septum. This he operated upon.

Fig. 5-A.—(Case No. 5) Before operation.

Fig. 5-A.—(Case No. 5) Following operation. Osteo-cartilaginous graft.

Examination shows nose badly fractured with marked displacement and deformity. Marked depression of the nasal pyramid is also present.

Operation March 7, 1928. Refracture of nose was accompanied by a small padded mallet, the nose being well protected by a heavy gauze pad. Operative technic same as in other cases. Graft showed perfect take four weeks after surgical intervention. Patient seen three months ago, presenting good operative results. There is mobility to the graft at its upper end probably due to fibrous tissue.

Case 4. Dec. 7, 1928. (Cartilaginous Graft, Ninth Rib.) J. S., 43 years, white, male.

Patient gives history of fractured nose on several occasions. Examination shows a sunken nasal septum which is very disfiguring. The nasal bone is deviated to the right, the result of injuries.

This patient has had syphilis and was treated for a long period of time. Absorption of nasal septum may be probably attributed to this disease.

Operation. Endo-nasal route same as in previous cases.

Infection noted three days following operation accompanied by excessive swelling and all the cardinal signs of inflammation. Drainage of thick yellow pus was secured by opening endo-nasal incision and inserting forceps. Drainage continued for about three weeks. Cartilaginous graft remained in place after infection had subsided. The result is quite satisfactory and the appearance of the patient was greatly improved when last seen, six months after operation.

Case 5. April 16, 1928. (Osteo-Cartilaginous Graft.) J. O., 44 years, white, male.

History of syphilis in 1923. Intensive treatment in Galveston. Has had treatment on and off since. Wassermann negative at present time.

Examination of nose shows depression and absorption of nasal septum giving saddle back appearance.

Osteo-cartilaginous graft—endo nasal incision June 29, 1928. Some absorption of osseous end of graft. Skiagraph taken August 24, 1928, reports "Apparent partial absorption of the rib graft."

Patient seen January, 1929, six months after operation. No further absorption of graft and patient's appearance is definitely improved.

Case 6. March 28, 1928. (Cartilaginous Graft.) F. G., 30 years, white, male.

History of osteomyelitis of nasal bone in 1917 following lacerated wound at base of nose. Operative removal of practically entire nasal bone. Patient presents unsightly deformity of nose at base with extensive cicatricial tissue. He is self-conscious about his appearance and thinks his advancement in his work has been retarded by his deformity.

Operation—Endo-nasal route—incision made high up in nasal vestibule to facilitate access to site of deformity. Convalescence uninterrupted. Operative result excellent. Heard from last December 24, 1928. Graft in place. No shrinkage. Patient now first mate on ship. (Note difference in expression before and after repair.)

Case 7. November 3, 1929. (Cartilaginous Graft, ninth Rib.) S. G., 19 years, white, male.

Congenital deformity of nose, "Pug Nose." Operative technic (endo-nasal route) as in previous cases. Convalescence excellent. No infection. Good operative results.

Patient seen this month. Graft in place. No absorption.

SUMMARY.

1. Nasal deformities are usually disfiguring and present both a surgical as well as an economic problem.

2. Costal cartilige is the material par excellence for the repair of loss or skeptical support of the nose.

3. The most rigid asepsis is essential for results.

4. The seventh, eighth and ninth ribs are those best suited for grafts by reason of their accessibility and source of cartilage.

5. The endo-nasal operative approach is recommended as it results in a hidden scar and satisfies the laws of surgical drainage.

In conclusion, I wish to express my appreciation to Dr. William A. Padgett, Chief of the Ear, Nose and Throat Department, U. S. Marine Hospital, for his helpful suggestions and his performance of the submucus resections, and to Mr. Guy Buisson of the Roentgen-ray Department for the preparation of the accompanying slides.

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DISCUSSION.

Dr A. I. Weil (New Orleans): Dr. Metz asked me to discuss his paper, which I am very glad to do, but I regret not having had the opportunity of reading it beforehand. I have, however, subsequent to operation, seen some of Dr. Metz's patients, with photographs before the operation, and I want to say that the improvement was even greater than is shown by these pictures of the outcome. Dr. Metz is to be congratulated on his excellent results in a procedure which is now fairly common, but which does not always give such uniformly good effects as he obtains. This success I attribute to his skill, the excellent technic employed, and the aseptic precautions taken to safeguard against infection.

The osteo-cartilagenous graft is the outcome of a process of evolution, a number of things having been used throughout the years. Those of us who can remember twenty or thirty years back will recall such cases treated with paraffin injections and the beautiful results that paraffin gave. We were delighted with those noses but, unfortunately, they did not stay in place or retain their shape—a beautiful nose for three or four years, then a nose which was probably worse than the original. Ivory has been used rather successfully by Beck of Chicago in several cases. His efforts in that direction are, however, he tells me, only experimental as yet. The only advantage that ivory offers is that it is easier to get and we avoid the extra operation of removing a graft from the rib, or tibia, or any portion, that we want to use for the transplant. For the general surgeon, of course, a rib transplant is very easy to remove, but for the nasal surgeon, taking a piece of rib is not so simple a procedure, and unless he is going to call in a general surgeon to do that part of the work, it may be better for him to use bone from some other region. To remove a piece of bone from the tibia is quite easy. Beck has had excellent results with grafts from the tibia and arm. Tieck of New York uses the cartilage that is obtained from the septum at the time of the submucus resection. As you see from the plates, nearly all these cases have some deflection of the septum and submucus resection is a part of the operation. Tieck does the resection at the time that he does the plastic, using the septal cartilage as a graft with good results. Cartilage, as Dr. Metz stated, is the material to use for the correction of nasal deformities. Of course, in dealing with large nasal defects (as in some of the cases he has shown), where there is lack of both bone and cartilaginous substance, the osteo-cartilaginous portion from the rib is the ideal transplant, as it supplies the same composition that the nose had before.

But whatever the method used, the result adds much to the appearance and happiness of your patient. These people go about seeking work, obsessed with the idea that they are objects of ridicule, and the added contentment, happiness and success that they have in their work is sufficient reward for any pains and difficulty we may have experienced in working up that operation. I remember a nurse at Touro who had a marked deformity of the nose. I operated on her shortly before she graduated and not long after she was happily married. I believe I am responsible for her happiness because I do not think she would have gotten a husband with the nose she had.

Dr. Keith Kahn (New Orleans): I congratulate Dr. Metz upon the splendid results he has achieved in his cases, which demonstrate his superb artistic ability and remarkably keen surgical judgment. However, there are one or two steps in the routine of this operation which he either does not use in his technic or possibly fails to mention. Just as an architect in constructing or reconstructing a building has a model from which to execute his work, so the plastic surgeon, in a nose of this type, requires a model by which to do the operation. The routine that I employ in my clinic is somewhat like this:

If there is a concavity I take a plaster cast of the nose, using quick-setting plaster-of-Paris. (One or two minutes suffices for its setting.) Before taking the impression, I grease the face with vaseline or some oily substance and stuff the nostrils with cotton. This procedure prevents the hairs from adhearing to the plaster. During the taking of the cast, I keep the mouth of the patient wide open to facilitate breathing as well as to relieve any discomfort and to allay any anxiety that may be felt by patients inclined to be

nervous. From the cast I make a plaster mold which is an exact duplicate of the nose. Using ordinary sealing wax, I correct the deformity on the mold. When the wax is removed from the mold, I have an exact pattern of the required cartilaginous or osteo-cartilaginous graft. I always take this wax model to the operating room and, if necessary, have it sterilized. A point worth remembering is that your model fits over the skin and that the increase in size must therefore be compensated for—the graft should be slightly smaller. I shape the graft from the model and insert it by the intra- or extra-nasal route, as the case demands. The graft should fit the nose like a saddle. When the graft is removed from the eighth or ninth rib, the perichondriated side contracts. This contraction is relieved by making criss-cross incisions in the perichondrium.

The certilaginous graft, in my opinion, is the best of all, first, because it is never absorbed, and secondly, because it is pliable and may easily be cut to fit the deformity. I have cases, operated upon eight years ago, in which cartilage was used, and in which, to date, no absorption has taken place. However, in the osteo-cartiliaginous grafts, partial absorption frequently occurs, and the results are not always good.

Whether the incision for introducing the graft into the nose should be made intra- or extra-nasally, seems to be a matter of opinion. However, I have found (in a hundred cases) that in traumatic conditions the intra-nasal is the proper method, whereas, if an endocrine disturbance or a hereditary syphilitic condition is suspected, the incision between the eyes is the proper one, because, under these circumstances, the graft "takes" slowly, serum collects, and infection may occur with sloughing. The extra-nasal incision permits the insertion of a small drain and minimizes the chances of infection, As for the scar between the eyes, it is hardly noticeable, because, after healing, it is peeled four or five times. The peeling is followed by manipulation.

The use of foreign bodies, whether celluloid, ivory, platinum, paraffin, or any other substance of the kind used in the support of tissues should be earnestly discouraged, because frequently sloughing of the skin and surrounding tissues occur if a severe blow is received over the inserted foreign substance. I have seen this disastrous result occur in several cases; the use of foreign bodies is a procedure that deserves condemnation.

A frequent reason for the performance of a rhinoplasty on the saddle-back nose is to remove the syphilitic signboard. Many people who have noses of this type are suspected of having syphilis, in which case the operation is done purely for cosmetic purposes. However, I have found that, in the field of plastic surgery, about sixty percent of the patients seek relief from these deformities in order that they may comfortably wear glasses, which the majority of them need.

Dr. George B. Collier (New Orleans): I had the pleasure, at the Ear, Nose and Throat Hospital, of seeing Dr. Metz's cases.

Dr. Metz spoke of the endo-nasal method of approach and of the danger of infection, which I do not think is as great as he represents. In doing submucous work our results are as good when we do not use mercurochrome or picric acid as when we do. I have tried asepticization and thought I got wonderful results, but in a series of cases I see no difference. However, when I have a case that I am unusually interested in or anxious about I apply either picric acid or mercurochrome. It has been proven that the mucous membrane of the nose cannot be sterilized without killing it. When we go into the ethmoids and sphenoids it is impossible to render them perfectly aseptic, and I am certain that a patient will not develop meningitis unless we go in and open up the brain. Every precaution should be taken no to traumatize any more than we can help.

I believe that Dr. Metz is a little too apprehensive about infection from the endo-nasal route; if he will bear this in mind and avoid all possible trauma and continue the intra-nasal method, his excellent results will really continue to improve.

Dr. Waldemar Metz (closing): I wish to thank the gentlemen for their liberal discussion of this subject and their generous remarks.

In reference to what Dr. Weil said about septal cartilage, Dr. Rolf of Montreal, who has done quite a good deal of this type of work, states that septal cartilage is made up of yellow elastic tissue which is absorbed rather readily. I have had no experience with it.

Dr. Kahn's remarks about the model are all quite well taken. I forgot to mention that in the last two cases I had a plaster cast made of the nose by the Dental Department in the hospital, followed by a hard rubber mold. I find it facilitates the formation of the graft and minimizes the possibility of infection by introducing the graft into the nose, taking it out, shaping it over and replacing it. I agree with what he says also in regard to incisions over the graft to take care of any collection of serum that might lead to infection and sloughing.

DIAGNOSIS AND TREATMENT OF INTRACRANIAL HEMORRHAGE IN THE NEWBORN.*

E. L. KING, M. D.,† and MAUD LOEBER, M. D.,‡

NEW ORLEANS.

This condition is so frequently encountered, and is so often fraught with such serious consequences for the child, that we feel that no apology is needed for again calling it to your attention. As in many other morbid lesions, prophylaxis is of the greatest importance, and it is this phase that we especially wish to emphasize. The problem is both an obstetrical and a pediatric one, and so the cooperation of workers in these two fields is essential in order to obtain the best results.

There are many types of lesions, but we feel that it is hardly necessary to consider the details of the various pathological findings, as the symptoms are in the main similar and the treatment is along the same general lines. Suffice it to say that the new born infant can tolerate a fair amount of cortical hemorrhage, because of the yielding of the skull on account of the non-ossification of the sutures and fontanelles. On the other hand, any appreciable accumulation of exstravasated blood around the medulla or increase of pressure in this region, is frequently accompanied by symptoms of marked derangement of function, and death not infrequently results.

In consulting the literature of intracranial hemorrhage, we have found many series of post mortem reviews on stillbirths and newborns and we were impressed with the uniformity of the findings.

Holland[1] in a group of 167 autopsies on newborn infants found intracranial hemorrhage in 50 per cent, while Adair and O'Brien[2] in 300 autopsies found that in the stillbirths 60 per cent showed hemorrhage and in full term infants 70 per cent. Warwick[3-8] in a review of 38 autopsies of newly born infants found intracranial hemorrhage in 47 per cent, while the Manhattan Maternity hospital in 100 consecutive autopsies in which the head was opened, found that 40 per cent died from cerebral hemorrhage. We ourselves have frequently observed this factor as the cause of death at not a few of the autopsies we have attended in our service at Charity Hospital, and for that reason felt a discussion of the topic timely.

In enumerating the causative factors in a former discussion, one of us stated that sepsis, mechanical pressure, blood vessel resistance, blood dyscrasia, peculiarity in the tissue of the newborn, blood vessels demonstrating some physiological incompleteness of the newborn baby, as well as toxins (especially in the case of babies born of eclamptic mothers), syphilis, cranial stress, and trauma, are all given serious consideration by various authors. Grulee[5] and Bonar[5] state that it is a well known fact that prematurity and instrumental deliveries are responsible for a large proportion, but they themselves rather minimize the statement that instrumental deliver alone is responsible in a large proportion of the cases.

Pearson and Wyllie,[6] in discussing the subject, quote Brown[7] as stating that "from a series of 120 stillbirths and 80 neonatal deaths no case of cerebral hemorrhage occurred in a full-term child in which delivery was a natural process." Warwick[3-8] thinks that a large proportion of her cases are definitely due to hemorrhagic disease, while Adair and O'Brien[5] think that 90 per cent of their cases are of traumatic origin.

As this is an obstetrical condition, it of course develops at or before birth, so a con-

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sideration of the prenatal symptoms is essential. We are all familiar with the text book statements that a fetal heart rate over 160 or less than 100, or the escape of meconium in vertex presentation, are signs of fetal distress. But these points need elaborating, and there are others to be mentioned. Clinical experience has shown that a rapid fetal heart rate, while deserving great attention, is not nearly so serious as a slowing heart, especially when irregular. It is a great mistake to wait until the rate reaches 100 before becoming worried about the baby's condition as by this time a most serious lesion has frequently developed. Furthermore, we have noted these points as regards the irregularity of the fetal heart: (a) that the fetal heart is normally irregular for a few seconds after a uterine contraction (say ¼ of the time between pains); (b) that frequently this period of irregularity is prolonged to about ½ the period between the pains, which usually means that the cord is around the neck and is drawn tight during contractions (but not in all instances of cord around the neck is this noted); (c) that when the irregularity persists for the whole inter-pain period, the infant's head is being dangerously compressed, and delivery as soon as possible without inflicting further injury is indicated. The escape of meconium in vertex presentation is an indicator that fetal asphyxia is impending, but recent observations here and elsewhere indicate that it is not so important a sign as it was formerely considered. Many cases have been noted in which this escape of meconium occurred yet the fetal heart tone remained normal and the baby was delivered in good condition. Other factors to be considered are the length of the second stage (not of the entire labor), the strength of the uterine contractions, and the position of the head. Thus, with the head in the R. O. P. or especially in deep transverse arrest, with strong or overstrong pains, a relatively short period of time will suffice for the infliction of severe damage to the cranial contents. The use of pituitrin is a frequent factor in the causation of this condition, and it should be employed very rarely and very cautiously in the second stage.

Instrumental delivery is frequently responsible for the development of this condition, especially when performed too rapidly or too early or in an unskillful manner. It is frequently found in the after-coming head in breech presentation, due to the various stresses so rapidly applied to the head. It has even been noted in infants delivered by Caeserian section, but here it is very probable that it had already developed before the operation was begun.

The symptomatology depends somewhat on the site and extent of the bleeding. The history of the labor may aid in anticipating symptoms of intracranial hemorrhage according to Foote[9], although it frequently occurs after ordinary normal delivery. Generally speaking, it may be watched for: (1) "After very rapid delivery, especially of premature infants; (2) after breech delivery, especially following version or difficult extraction; (3) after protracted labor, especially accompanied by instrumental delivery; and (4) when spontaneous hemorrhage is seen."

Foote[9] recognizes two clinical types of intracranial hemorrhage (a) the rapid traumatic type (massive hemorrhage) due mainly to the rupture of a large vessel or vessels in which symptoms appear very soon after birth and in which hemorrhagic tendency plays a minor role; and (b) the slow spontaneous type (the delayed hemorrhage) due to an injury of minor degree which has been made dangerous through the innate tendency to bleed. Intermediary types are found, he says, and here belong those infants in whom asphyxia is at least a predisposing cause.

In the massive type, the baby is generally restless, cries excessively at first, which is followed by feebleness of cry,

lethargy, tremors of arms and legs, or convulsions. If lethargic, the baby is relaxed with arms limp instead of flexed and drawn to sides, the legs limp and extended instead of flexed and drawn up on the abdomen. The infant is cyanotic, refuses to nurse and in severe hemorrhage the lip refiex is absent. In a hemorrhage over the vertex one observes a bulging fontanelle. Death often occurs within a short time after delivery. If the case goes on to recovery it usually results in a spastic paraplegia or mental retardation.

In the delayed hemorrhage caused by a rupture of a small vessel somewhere in the cranial cavity, either on the vertex or in the layers of the tentorium, it is possible that hemorrhagic diseases of the newly born is an underlying factor, as instanced by the prolonged coagulation or bleeding time. Rodda[10] suggests routine coagulation and bleeding time to determine the complication of hemorrhagic disease of the newly born. In this type the infants appear normal at birth and after about 24 hours there may be irritability, with high pitched cry, intermittent cyanosis and pallor (due to increased cerebral pressure), twitchings, or lethargy with a disinclination to nurse, and tenseness of the fontanelle. When the hemorrhage is below the tentorium the cyanosis is early and marked, the fontanelle does not bulge early and retraction of the head is frequent. When the facial and other cranial nerves are affected, they show paralysis of a bilateral type. In hemorrhage below the tentorium Foote[9] states that the infant frequently protrudes its tongue to an abnormal degree, but although this is an early symptom it is not an invariable one; when present he believes it due to the irritation of the hypoglossal nerve.

When the hemorrhage is in the region of the hemispheres, cyanosis comes rather late, retraction of the head is usually not present, and the fontanelle is usually firm and bulging. Morse[11] states that in a general way convulsions, rigidity, and bulging of the fontanelle are more likely to be present if the bleeding is largely above the tentorium and respiratory disturbances if it is below.

Focal symptoms are not to be relied upon in newborn infants. Grulee[13] states "no matter where the convulsion is, it has no significance as to the location of the hemorrhage."

Differential diagnosis: Cyanosis is also seen in congenital heart disease. This condition is relatively infrequent in autopsy findings as compared to cerebral hemorrhage, and in addition the cyanosis is not so persistent. Asphyxia (livida and pallida), while often present as definite entity without hemorrhage, is also often associated with cerebral hemorrhage of the newborn. The history of delivery, the tenseness of the fontanelle, coma and paralysis aids in making a differential diagnosis pointing toward hemorrhage. (Holt and Howland[12]). Pneumonia in the newborn usually shows the symptoms of general septicemia, with no findings on physical examination of the lungs, but the fever, irregular breathing and cyanosis point toward pneumonia. Some cases occur in which the infant refuses to nurse and does not cry, sleeps all the time for apparently no reason. There are also muscular twitchings occasionally occurring without any accompanying symptom. These symptoms not infrequently occur in premature infants. Whether or not these are manifestations of intracranial hemorrhage is a disputed question at this time. Spinal puncture or cisterna puncture is used for diagnostic and therapeutic measures. Morse[11] in quoting Munro[13] states that normal cerebro spinal pressure in new born infants is 6 millimeters of mercury and anything above 10 millimeters is abnormal. Congenital debility or prematurity is often associated with intracranial hemorrhage. One finds no distention in the fontanelle, but rather a depression in the fontanelle of the premature infant. In sepsis, although one may have cyanosis and

also twitchings, the bulging of the fontanelle is never seen, and the spinal fluid is also of diagnostic aid. Icterus gravis as well as hemorrhage are unaccompanied by fever. In icterus gravis there is hemorrhage from various places, and icterus is more marked. In icterus convulsive seizures are not an outstanding feature. Enlarged thymus presents definite symptoms referable to the enlarged merit, viz., noisy and difficult respiration, and cyanosis, which cyanosis may be intense and may be attended with convulsions. This condition is, according to Holt and Howland[12], differentiated by roentgen-ray findings and spinal puncture.

A recent personal experience will serve to emphasize the difficulty at times encountered in differentiating between enlarged thymus and intracranial hemorrhage. There was a history of long and difficult labor with oversized baby, weight 9 pounds 11 ounces. The mother was a primipara over 30 years of age. The baby exhibited the following symptoms: Noisy and stertorous respiration, cyanosis, tense fontanelle, muscular twitchings and convulsions. Cisterna puncture showed spinal fluid under pressure and bloody. The symptoms improved to return about 12 hours later. Another puncture revealed the fluid slightly tinged with blood and not under pressure. The symptoms this time were not much relieved, and a third puncture showed practically clear fluid and not under pressure. A roentgenogram showed an enormous thymus filling almost the entire chest. The baby died immediately after being rayed. Partial autopsy, the head only being opened, showed a slight tear along the free edge of the tentorium, no free blood in the cranial vault nor at the base of the brain nor in the ventricles nor on the hemispheres of the brain.

It is, of course, much better to prevent the occurrence of this condition, and its prophylaxis consists, in the main, in the application of correct obstetrical principles. Most, but not all, of these intracranial injuries resulting in hemorrhage can be avoided. Accurate prenatal study should discover for us the cases of disproportion and malpresentation and careful and frequent auscultation of the fetal heart tones during labor, especially during the latter part of the second stage, will often give us our first indication of impending trouble. The timely use of forceps will save many a baby's life. But too early a resort to this instrument will often be responsible for intracranial hemorrhage, while on the other hand if intervention is postponed too long, damage may have occurred which could have been prevented by earlier interference. As a general rule, the lower head the easier the forceps operation and the safer for the baby. Early recognition of bad presentations and faulty positions, and prompt correction of the same, are matters of importance. The careful management of breech presentations, conducting the delivery with expedition but not with frantic haste, and the resort to forceps on the after coming head when its extraction is difficult, will avoid trouble in many cases. In patients with borderline pelves, an adequate test of labor is essential (say four to six hours of good pains), but too much pounding of the head upon the superior strait may cause intracranial damage before the final resort to Cesarean section. At times, the induction of labor in case the baby is becoming unduly large is indicated.

De Lee has two slogans: "First of all, do no harm," and "Not by strength, but by skill."

The curative therapeutic measures almost universally recommended are the administration of 20 to 50 c.c. of whole blood or citrated blood intramuscularly, intraperitoneally or subcutaneously. If blood is given intraperitoneally, it should be typed. Horse serum in lieu of human blood may be used. If no blood is immediately available, fibrogen (Merrill), 1 c.c. or Squibbs' thromboplastin, 10 c.c., should be given subcutaneously. Absolute quiet is enforced, no vigorous handling or nursing, Breck feed-

ing is preferable, and cold is applied to the head. Bromide or chloral bromide is given to control the convulsions, and oxygen for the cyanosis. Trephining for relief of pressure or osteoplastic flap flap resection have been suggested, as well as decompression operations for removal of organized clot. Spinal puncture or cisterna puncture is done, repeated every eight to twelve hours for relief of symptoms or until the fluid returns clear, or is not under pressure. We believe that cisterna puncture is preferable to spinal puncture, as the bending of the body increases pressure and thus favors hemorrhage.

CONCLUSIONS.

To summarize then, we may say that accurate prenatal study and good obstetrical care will generally prevent the development of this complication. Careful observation of newborn babies, especially of those delivered instrumentally will enable us to detect symptoms in their incipiency, and to institute treatment early. Repeated spinal or cisterna puncture, supplemented by other measures, as outlined above, is our main recourse. Decompression is rarely indicated, and is associated with considerable danger.

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DISCUSSION.

Dr. Chas. A. Bahn: About 25 to 40 per cent of all infants at birth have retinal hemorrhages. Most of these are absored within 24 to 48 hours and without permanent damage to the eye. Occasionally, however, where absorption does not completely take place for weeks or months, permanent damage to sight may result.

Will Dr. King tell us whether or not, in his opinion, retinal hemorrhage is co-incident with intra-cranial bleeding at birth and if the severity of the retinal condition might not be an index to the ventricular condition.

We are indebted to Dr. King for his interesting and painstaking investigation of an important subject.

Dr. R. A. Strong: I have not made up my mind as to whether intracranial hemorrhage is on the increase or not but I am convinced that since pediatrists and obstetricians have been cooperating in studying it, it is recognized much more than formerly. There is one thing certain and that is there has been a notable increase in the literature on the subject. For a long time, it will be recalled, obstetricians treated the baby as a sort of by-product like the placenta and believed that the mother required more of their attention. (Of course I do not refer to any of those present).

It required no small amount of discussion before pediatrists and obstericians got together and some of this discussion was quite vigorous at times. I recall a particular medical meeting at Hot Springs about eight years ago when this subject was discussed between these two groups. It has been written that friction generally polishes and from this conflict of opposed opinion progress resulted so that at the present time the obstetricians over the country agree that the baby should be examined carefully by the pediatrist immediately after birth. Much information has been acquired as a result.

The symptoms most frequently noticed in intracranial hemorrhage of the newly-born may be immediate or they may be delayed for several days after parturition. One of the first things noticed is the cessation of normal nursing after it has been established. The child may be either very restless or crying all the time with a shrill cry suggestive of meningitis, or it may be very quiet and limp. It is usually pale and often cyanosed. The pulse may be either slow or rapid. The temperature may be normal, subnormal or high. High temperature may be explained by the fact that the infant has not taken a sufficient amount of fluid.

Difficulty with respiration is another frequent symptom. Bulging of the anterior fontanelle, while often present, is not a common symptom. Blood in the spinal fluid is an important symptom. Dysphagia occurs with an inability to suck and a difficulty in swallowing. Signs of cerebral irritation occur, consisting of twitching of the hands and feet, nystagmus or even convulsions. There may be evidence of hydrocephalus if the intracranial lesions are in the proper place to obstruct the foramina.

Formerly it was the custom to attribute intracranial hemorrhage to poor obstetrics, and while it is still true that trauma is the greatest single factor causing the condition, there are others together unrelated to obstetrics. Those which have been emphasized in recent contributions are prematurity, syphilis, maternal toxemia, asphyxia, which is usually accompanied by venous congestion, sepsis neonatorum, congenital anomalies and imperfect vascular development. Concerning imperfect vascular development much has been written. This condition has been detected as a direct result of more perfect autopsy technic. Much of the hemorrhage observed as a result of this cause is capillary. It is for this reason that one author spoke of it as "incomplete architecture of the capillaries.' Naturally birth trauma can supplement any one of the foregoing conditions in the production of intracranial hemorrhage, but one or more may act as causative factors without birth trauma.

Of the obstetrical factors which have been most frequently emphasized, breech presentations with the sudden compression of the after-coming head, perhaps in the wrong diameter, still lead the list.

There can be little doubt but that there remains much to be learned concerning intracranial hemorrhage in the newly-born. It is still a fertile field for study, but much can be done in this condition to prevent serious consequences if it is detected early enough.

Dr. Edwin A. Socola: I think that a good rule to follow in the treatment of intracranial hemorrhage of the newborn is that of Munro who considers 6 mm. of mercury as the normal cerebrospinal pressure and that anything above 10 millimeters is abnormal. Under 18 mm., lumbar puncture is performed to relieve the intracranial pressure, above 18 mm., he considers the necessity of ventricular puncture or substemporal decompression.

Dr. E. L. King: (Closing): In regard to Dr. Bahn's question, I would like to have him study some of the eyes in newborn babies.

As Dr. Strong suggested, intracranial hemorrhage is not on the increase, rather, it is recognized more than formerly. I feel that many of these conditions that we used to diagnose as asphyxia of the newborn are really instances of intracranial hemorrhage. We frequently have babies that do not breathe well and have learned not to work on them so vigorously as we used to, to bring about respiration. In these cases at Charity Hospital, where babies do not breathe readily, we bring about respiration by artificial means. We do a spinal puncture and if we find hemorrhage it has done good; if we find no hemorrhage, we feel relieved.

In about five per cent of newborn babies there will be intracranial hemorrhage. We do not get intracranial hemorrhage after many normal deliveries, but we do at times. We see it especially in large babies or premature babies, so it is not always traumatic.

Again, spinal puncture does not always tell the whole story. Some give clear fluid without abnormal pressure, but on cistern puncture we get bloody fluid under increased pressure. Cistern puncture at the hands of those skilled in its technic is preferable, but unless the attendant has trained himself to do this, it is better for him to employ spinal puncture.

THE DIFFERENTIAL DIAGNOSIS OF LAME BACK.*

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Lame back is one of the commonest ailments of man. The causative pathological manifestations, to the medical man, are oftentimes most elusive and the professional compensation seeker has, unfortunately, for many years thoroughly appreciated the potential possibilities of pain in the lower back. The railway spine has definitely taken its place in the field of surgical diagnosis as a distinct clinical entity, with an agonizing symptom syndrome soothed only by the balm of a court decree.

We must not forget, however, that some patients suffer severely from slight lesions and, contrariwise, lesions which would appear to be the basis of a most severe train of symptoms may cause little or no discomfort. It is then obvious that partial examinations should be taboo, the words lumbago and rheumatism of the back for the most part forgotten, and a diagnosis be made only in the light of an accurate history, a general physical examination, examination of the spine, examination of the extremities, a neurological examination and carefully made roentgenographic studies.

The etiological factor in low back pain may be placed in one of the following categories:

(1) Diseases of the abdominal viscera.

(2) Tumors of the spinal cord and vertebrae.

(3) Traumatic conditions.

(4) Arthritis of the spine.

(5) Diseases of the vertebrae.

(6) Disturbances of posture and developmental anomalies.

*Read before the meeting of the East Mississippi Medical Society, Meridian, February 13, 1930.

ABDOMINAL DISEASES.

The following abdominal conditions I but mention to emphasize the necessity of a general examination because of the multiplicity of lesions, the presenting symptom of which is at times low back pain: nephrolithiasis, infections of and about the kidney, acute nephritis, prostatitis, rectal diseases, gynecological diseases, retrocecal appendix, splenomegaly, carcinoma of the stomach, and many, many others, even including pregnancy.

TUMORS OF THE SPINAL CORD AND VERTEBRAE.

Cord—Tumors of the cord are rare and when present are usually sarcoma, fibroma or glioma. They occur most frequently in the posterior and lateral portions of the thoracic cord. The symptoms are indefinite. They are usually those of pressure on the cord or nerve root irritation. The injection of lipiodol may be of assistance.

Vertebrae—Benign growths rarely occur here. Tumors of the vertebrae are usually sarcoma, carcinoma or myeloma. Diagnosis may require prolonged observation. When vertebral tumor is suspected malignancy should be carefully sought for elsewhere in the body, as sarcoma is most often, and carcinoma always secondary when present in the spine. Cord symptoms occur early, are pronounced and completely out of proportion to the cord symptoms of tuberculosis. Tumors occur usually in the third age period, that is between the ages of 40 and 60 years. From the roentgen-ray point of view they are differentiated from other affections by the fact that the body alone is affected, there is no angulation until the late stage is reached, seldom displacement, but narrowing of the body with or without new bone production.

TRAUMA.

Fractures and Dislocations of the Vertebrae—Here we have the usual symptoms of lame back: pain, stiffness, limitation of motion, muscle spasm and flattening of the lumbar curve—none of which are diagnostic. Carefully made and carefully read roentgenograms are most essential. Here,

as in all suspected spine affections, anterior-posterior plates should be made in stereo and checked by lateral views. There is this one point to remember: in compression fractures there may be no early symptoms whatever, but later on, as bone begins to form, lame back develops and at times with a small kyphos.

Tears of the Spinal Muscles—This condition is known by the misnomer lumbago. The diagnosis is based upon the history of injury, which differentiates it from simple myositis from exposure to cold. Negative roentgen-ray plates help eliminate osteoarthritis, fractures, postural backaches and congenital anomalies. In severe cases swelling is evident from profuse hemorrhage. In minor cases recovery takes place within two weeks.

Sacro-Iliac Strain—In this condition the roentgen-ray may be of little value. The chief symptom is localized pain and tenderness in the region of the posterior sacro-iliac ligaments. Immediately after the accident the pain may be agonizing and the patient unable to move without extreme distress. It is to be differentiated from infectious arthritis and tuberculosis of the sacro-iliac joint, but is most likely to be confused with lumbo-sacral strain. From the latter it exhibits the following points of differences:

Sacro-Iliac — (1) Leverage unilateral via lower limb, (2) pain referred to posterior aspect of thighs and adductor region, (3) tenderness over posterior sacro-iliac ligaments and sacro-sciatic notch, (4) limitation of motion in unilateral side bending and extreme forward bending, the latter being free with the hamstrings relaxed, (5) compression of pelvis occasionally causes pain in sacro-iliac joint.

Lumbo-Sacral—(1) Leverage from above with spine in flexion, (2) pain referred to outer side of leg, dorsum and sole of foot, (3) all lumbo-sacral motion limited, (4) compression of pelvis causes no pain.

Railway Spine—The most important points are negative findings, contradictory character of symptoms, marked degree of introspection and self pity.

ARTHRITIS AND VERTEBRAL DISEASES.

Arthritis Deformans—I shall consider together the Bechterew type, in which the spine alone is affected, and the Marie-Strumpell type in which the shoulders and hips are also involved. The disease presents all the characteristics of lame back. It is progressive, but intermittent, the patient handing himself very carefully. There are acute attacks of lumbago with flattening of the lumbar spine and some lateral deviation. When arthritis is present elsewhere in the body we naturally suspect the spine affection to be arthritis. Roentgen-ray appearances, when present, are characteristic, but negative findings do not exclude arthritis as the non-formative type may be present. The first radiographic evidence is flattening of the edges of the vertebrae where the lateral ligaments are attached. Later exostoses appear at these sites and proliferate, always pointing towards the next vertebra. The Marie-Strumpell type begins in the lumbar region and involves progressively the whole spine. It occurs in the second age period. It results in calcification of the ligaments with ankylosis of the joints, the vertebrae themselves becoming atrophic. Acute spondylitis deformans presents the same picture as the Marie-Strumpell type but the progress is much more rapid and any joint may be involved.

Infectious Arthritis—Let me first mention here that the arthitides present the same pathological manifestations in the spine as in joints elsewhere, but with the modifications we would naturally expect from the anatomy involved. We do not usually get narrowing of the joint spaces as the intervertebral discs hold the vertebrae apart. Tuberculosis is the exception. In the early stage there is destruction of the articulating processes alone. It is diagnosed usually in the second stage when

there is beginning destruction of the body with obliteration of the interspaces. There is no new bone production and in the thoracic or lumbar regions there is posterior angulation. The lateral roentgen-ray plate shows the body has become triangular in shape producing the kyphos. The posterior portion of the body and laminae are practically never involved. The disease is most prevalent in children and young adults.

In the non-tuberculous cases there is no angulation, bone production does occur, there is no obliteration of joint spaces, and the body is not as a rule involved. It may occur at any age, dependent upon the type of infection. Osteomyelitis alters both the intervertebral space and body, but occurs so rarely that I shall not enter into it.

POSTURE AND DEVELOPMENTAL ANOMALIES.

In the standing position the body is in unstable equilibrium and to maintain that equilibrium the center of gravity must lie over the base of support. Mechanically, the weight of the body is regarded as concentrated in the center of gravity. The normal attitude is that of balance and ease. Since the human skeleton is only that of the quadruped in the upright position serious defects consequently exist. I shall not enter into this in detail, but will only mention the association of visceroptosis, pot belly, round shoulders, lordosis, kyphosis and functional scoliosis with low back pain.

One of the most frequent, the most neglected, and in this connection, one of the most important ails to which the human body falls heir is foot strain. To enter into this condition would require a chapter within itself. But we should remember that it is the flat foot that causes pain, but the foot with the static error. It is the high arch that is most frequently painful. We should note particularly the presence or absence of pain and tenderness, the distribution of weight, limitation of motion particularly in dorsi-flexion and whether or not there is marked pes vagus.

Acute Lumbo-Sacral Angle—this condition is determined by lateral roentgen-rays. An inclination of the articular surface of the first sacral vetebra of more than 42.5 degrees to the horizontal constitutes a mechanical weakness. Secondly, according to Hibbs, if the center of gravity of the trunk, approximately represented by a vertical line drawn through the center of the body of the third lumbar vertebra passes anterior to, instead of through, the body of the first sacral vertebra a mechanical weakness is present.

An abnormality of the vertebral column may frequently exist without causing pain, but whenever pain develops, particularly after an injury and the roentgen-ray shows the presence of one of certain abnormalities we may rightly place the blame there until it is proved innocent. Impinging spinous processes of the lower lumbar and sacral vertebrae, defects in closure of the posterior arch of the first sacral, incomplete sacralization of the fifth lumbar, incomplete lumbarization of the first sacral vertebra, subluxation of the fifth lumbar and spondylolisthesis are all conditions revealed by the radiographs and are all conditions capable of producing persistent low back pain.

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THE MANAGEMENT OF VESICO-VAGINAL FISTULAE.*

C. JEFF MILLER, M. D.,

NEW ORLEANS.

Successes in the management of vesico-vaginal fistulae were sporadic and accidental until the middle of the nineteenth century, when after years of heart-breaking failure Sims and his succcessor Emmet, to the everlasting glory of American gynecology, removed this curse of womankind from the category of incurable conditions. Other notable contributions have since been made, particularly by Mackenrodt and by Ward, and its treatment is now established on definite principles. An entirely casual reading of the recent literature, however, makes me wonder whether these principles are fully comprehended. Certainly they are not being practiced routinely if one is to judge by the numerous very bizarre procedures reported for the repair of this type of fistula, and attempted, one must conclude, before established methods have at least been given a chance to fail.

On the surface, operation for vesico-vaginal fistula seems a fairly simple thing, little more than "Here is a hole, let us sew it up." But, unfortunately, the actual difficulties are many and the simplicity is purely superficial. It is true that modern obstetrics, by preventing neglected labors, has reduced the incidence of obstetric fistulae, and such reports as that of Bey, from Cairo, in which the majority of the 276 cases were due to pressure of the presenting part, are most unusual today. The prompt application of forceps, as Sims long ago pointed out, prevents fistulae, it does not cause them, and though recent reports of their occurrence after the use of the Keilland forceps are disturbing, the principle is unaltered. On the other hand, the percentage of postoperative fistulae is increasing, partly because more pelvic surgery is being done, partly, I regret to say, because the occasional operator is doing more work. In addition, the use of the cautery and of radium in the treatment of pelvic malignancy has brought into existence a third type, while spontaneous fistulae from vesical stones, ulceration, syphilis and similar causes are still occasional possibilities.

Each fistula presents its own problems, but all of them present certain common difficulties. In every instance operation must be done in what, for all practical purposes, is a body cavity, and one in which visibility is poor, access often difficult, and manipulation correspondingly awkward. This is especially true in postoperative fistulae, which are usually situated high, and which, like post-irradiation fistulae, are quite often exhibited in virgins. Access may be complicated, too, by the existence of adhesions. Again, the work must be done in a field which has been constantly wet by urine, and often infected urine at that. Moreover, we may be hampered by hemorrhage, which at times may be extreme, and, because of the limited access, quite difficult to control. I might add, though, that for my own part, trying as I know it may be, I consider free bleeding a really hopeful sign, for at least I know that I am not wasting my efforts placing sutures in devitalized tissues, in which healing cannot be expected. Finally, even in simple fistulae there may be an abundance of scar tissue, which, if the injury is due to irradiation or cauterization, may be extremely tough and unyielding, and in which the lines of cleavage may be entirely effaced. Frequently this scar tissue has been increased by previous attempts at closure—I have myself operated on women who have had as many as fifteen previous operations—and a vicious circle may be established in which with each attempt at closure more tissue slough occurs.

The surface simplicity of the operation, therefore, is plainly most unfortunate, for it betrays inexperienced surgeons into attempting it. As a matter of fact, as Frank points out, no gynecologic surgery requires a longer apprenticeship. This is

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no operation for a tyro, and the inexperienced surgeon who undertakes it should do so only after due consideration of its difficulties and only after due realization of the fact that his failure may make his successor's task the more difficult.

The details of technic are not the most important points in the management of vesicovaginal fistulae. The underlying principles are far more vital to success. In the first place, nothing is possible without visibility and accessibility. The knee-chest position has certain advantages, but its disadvantages are readily apparent, and Frank condemns both it and the Sims position on the ground that they tend to increase the distance between the fistula and the vulvar orifice, and so defeat their own purpose. I think he is correct in his contention, and I find that the lithotomy position, aided by a Sims speculum and a good light—you will forgive my mentioning so obvious a necessity—usually permits excellent exposure.

Accessibility has been made much easier in most cases since Mackenrodt suggested separation of the structures, and Ward has adapted the method to postoperative fistulae, most of which are located high in the fornix, by an extensive dissection of this sort, plus the use of deep longitudinal and lateral vaginal incisions. Kelly many years ago proposed opening the peritoneal cavity from below, but Ward and others hold that incision and ligation of the broad ligaments, while it may be a factor of safety as regards the ureters, should be reserved for exceptional cases because of the chance that infected urine may escape into the abdominal cavity. Whatever the method, the point is to note that accessibility is based upon wide separation of the structures. Once this is done, the bladder can usually be promptly displaced downward, possibly aided by traction on the cervix, or, if necessary, by release of adhesions above the vault. This, for all practical purposes, amounts to opening the uter-vesical space and mobilizing the intraperitoneal portion of the bladder.

The second principle in the treatment of these fistulae is separate suture of the bladder and vagina. Only the smallest types are suitable for joint suture. Unless the mucous membrane of each structure is inverted into that structure, they are bound to grow together again and the communication is bound to reform. Also, as Kelly points out, healing cannot be expected if two tissues with active function in opposite directions are united; by the laws of physics they are bound to pull away from each other. If the bladder and vagina can be sutured in different planes this is an added advantage, but I do not regard the point as of extreme importance.

Third is the question of suture material. Catgut, silk, linen and silver wire all have their places, though many object to the use of silk and linen on the ground that it favors the formation of stones. Small chromic is best for the bladder suture. Silver wire, in contradiction of the surgical maxim that metallic sutures must not be used in movable tissues, gives excellent results. It is always sterile, it cannot be contaminated as can absorbable suture material, it has a definitely bactericidal effect, it serves as a splint, and, most important of all to my mind, it does not tear through the tissues. I prefer to secure it in place by small shots rather than by knots.

Finally, preoperative and postoperative treatment have much to do with success or failure. Too early operation is unwise, both because spontaneous healing may occur in the most unlikely cases, and because, in obstetric fistulae, full involution of the genital tract must have occurred before proper approximation of the parts can be achieved. In infected cases sufficient time must be allowed for the exudate to absorb, though cleancut operative fistulae of course demand less time than do those due to sloughing and necrosis. I need scarcely add that in dealing with pelvic malignancy one must be quite certain that the malignant process is definitely arrested before the unfortunate

woman is submitted to unnecessary and futile surgery.

During this period of preparation the utmost cleanliness is essential. Vulvar pads are to be avoided as they increase the local irritation. Hot sitz baths, vaginal douches and bladder irrigations add to the patient's comfort and have a healing effect. The pubic hair is kept shaved or clipped, and soothing ointments and occasional applications of nitrate of silver will hasten the healing of excoriated areas on the vulva and vagina. Fluids are taken copiously, and the urine is kept acid and free from bacteria by the proper agents. Bladder and kidney complications must be ruled out, and cystoscopy is often necessary to identify the insertion of the ureters in relation to the injury.

As to postoperative treatment, I am still in favor, in spite of all the arguments against it, of the indwelling catheter, and I prefer the block tin type devised by Sims, because it is less likely to slip out or to corrode than the more modern types. If it should slip out, I would caution you to reinsert it yourself. I recently had a most embarrassing failure because my interne took it upon himself to replace a catheter which had slipped out, and damaged the suture line in his manipulations. I learned my lesson, and I now have a standing order on my service that all such accidents must be reported to me at once. It is my custom to keep the catheter in place for a minimum of ten days at least, this being longer than is usually advised. If the patient voids voluntarily, as is quite possible, one must be sure that the bladder capacity and the amount of urine correspond. The bowels are kept open by mild laxatives and low enemata, constipation being sedulously guarded against. It is imperative that the patient remain in bed for two weeks or longer, as too early movement may ruin an operation, while prolonged rest may turn an apparent failure into success. Coitus should be strictly interdicted for at least two months.

To revert to the use of the catheter as a postoperative measure, Sturmdorf is opposed to it on the ground that it is physiologically incorrect, since the floor of the bladder, the usual site of fistulous lesions, is a fixed structure which does not need supplemental immobilization. He claims also that for mechanical reasons the catheter actually does harm, in that it tends to aspirate the bladder mucosa into it, while only the upper level of the residual urine is drained off. I grant the logic of his arguments, but I still question the wisdom of routine catheterization, which obviously may cause infection, and which, because of the necessary manipulations, may damage the suture line.

Surgical measures, as Frank points out, may be divided into four groups, the Sims denudation of the edges, which is now limited to small fistulae; the flap-splitting or bladder-mobilization method; the combined laparotomy and vaginal method; and the miscellaneous group in which the hole in the bladder is stopped by the interposition of some other structure. I cannot emphasize too strongly that the combined laparotomy and vaginal technic is not for general use. It should be limited to fistulae high in the fornix and fixed by scar tissue, and unless it is combined with the proper dissection from the vaginal side, the laparotomy approach gives no advantage whatever. The introduction of this method has had at least one unfortunate result, in that, because superficially it makes access easier, it has thrown the field open to surgeons inexperienced in pelvic work, who do not always remember that any abdominal incision introduces an element of risk which vaginal operations do not generally possess. I would caution you also that if any portion of the uterus or cervix is used in the interposition technic, women in the childbearing age must be sterilized, for intractable dystocia will result if pregnancy should occur. The use of these structures, or of fascia lata flaps or flaps from the labia, is obviously adapted only to the occasional case in which other methods have failed, and it

is equally clear, both theoretically and actually, that the flap-splitting, bladder-mobilization method gives most uniformly satisfactory results and is most generally applicable.

It is highly important that the sutures be placed without tension, and this is usually possible if the bladder has been properly mobilized. In the rare instances in which it is not possible, it is better to close the fistula in several stages than to risk sloughing of the tissues and the formation of further scar tissue by reduction of the circulation. In doubtful cases it is a good plan to leave the vaginal wall, in which most of the tension occurs, entirely open after closure of the bladder injury. The exposed area is kept dry with aristol or some similar drying agent, and it is surprising to see how rapidly the space is filled in by granulation.

My own preference is for some form of general anesthesia, but Bey reports the operation of all his cases under stovain, the special advantage of this form of analgesia being that it permits depression of the posterior vaginal canal, and so obviates the necessity for the Schuchardt incision. His point seems well taken, and while I am opposed to stovain because I question its safety, it may be that with spinocain, whose diffusion can be controlled, safety and expediency may be combined.

Very small fistulae are occasionally cured by diathermy, and since the method does not harm, it may be tried if the facilities are at hand. Colpocleisis I mention only to condemn. There is no place for this entirely unanatomic and unphysiologic procedure today, though it may once have been a necessary evil. Bey, who used it in five of his cases, has no good word for it, stating that it tends to cause cystitis, pyelitis and calculi, and, if the uterus has not been removed, septic metritis. Hoffman of Persia employed it in a young girl, married and delivered at thirteen, with a hideous bladder defect, because he did not possess the necessary equipment and assistance for transplanting the ureters into the bowel. Two further operations were necessary immediately, and an extensive pelvic operation was necessary seven years later, and even final success does not encourage one to risk the duplication of such a history.

It is the type of fistula in which, in an earlier day, only colpocleisis was possible, for which implantation of the ureters into the sigmoid is now the accepted procedure. No vesicovaginal fistula should be considered hopeless as long as the vesical sphincter can be repaired — and careful dissection will often yield astonishingly brilliant results—but plastic surgery, no matter how skillful, cannot recreate muscle, and there are many instances in which the sphincter is gone and the bladder floor is wholly or partially destroyed. Formerly the implantation operation carried a high primary mortality and an almost inevitable later morbidity due to ascending renal infection. Now, thanks to the technic devised by Coffey, it is a practical procedure, and it is as safe as such an extensive operation can be. Of course it carries the risk inevitable in all intestinal surgery, but the danger has been reduced to the lowest possible terms, and one is justified in proposing the operation to the wretched women whose lives otherwise would be living deaths.

CONCLUSIONS.

1. The principles of the cure of vesicovaginal fistulae are established, but they are not being practiced routinely.

2. Operation, while superficially simple, actually may be extremely difficult, because of limited access, infection, free bleeding and abundance of scar tissue, and it is therefore never a procedure for a tyro to undertake.

3. The principles upon which success is based include visibility and accessibility, separate suture of the structure, selection of the proper suture material, and careful preoperative and postoperative treatment.

4. The principal operative procedures include the denudation method, the flap-

splitting and bladder-mobilization method, the combined laparotomy and vaginal method, and the substitution or interposition method. Of these the flap-splitting method is most generally applicable and most uniformly successful.

5. Colpocleisis has no place in modern surgery. In those cases in which the destruction of the bladder and urethra is too extreme to permit the employment of any of the standard methods, transplantation of the ureters into the sigmoid by the method of Coffey is a justifiable procedure in spite of its irreducible minimum of risk.

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DIAGNOSIS AND TREATMENT OF BLADDER TUMORS.*

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I do not hope to present anything new in regard to bladder tumors but want to stress the necessity of an early diagnosis, as the patient can often be relieved of this disease before its ravages have involved too much of the bladder, the adjacent organs, and placed the afflicted person in an incurable state.

When a patient consults his physician on account of hematuria, disturbance of urination, such as frequency, dysuria, polyuria, retention and incontinence, one should immediately think of bladder pathology. There may also be loss of weight, pain in perineum and legs, when the disease has advanced to an inoperable stage.

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The symptom of hematuria appears early in most cases of tumor of the bladder, and the attending physican should advise a thorough urological examination, for in their early recognition and prompt appropriate treatment of bladder growths lies the solution of cure of carcinoma of the bladder.

With a patient presenting the above symptoms a cystoscopic examination should be done. If the symptoms are due to a tumor the examination will reveal its presence, character and location. Bleeding may be so profuse that a clear cystoscopic examination cannot be made, and it will be necessary to irrigate the bladder with a solution containing adrenalin, or the hemorrhage may be controlled for the time being by irrigation with a warm antiseptic solution such as boracic acid. In case the above fails to clear the bladder of the blood, it may be necessary to defer the examination, and have the patient confined to bed, as this will aid in checking the hemorrhage.

It is very necessary that a piece of the growth be removed with the cystoscopic forceps, and a microscopic examination made of same in order to determine whether the growth is benign or malignant. In the presence of a cystitis the tumor may be necrotic or the urinary salts may be deposited upon the growth giving the appearance of an advanced malignancy.

Care should be taken not to mistake a blood clot fastened to the bladder wall, or an incrustation on an ulcer for new growth. The size of the tumor may make it difficult to determine upon cystoscopic examination, how far the condition has advanced. In such a case cystogram may be of some value in determining the degree of extension. In making the cystogram the bladder should be free of all blood clot as the filling defect made by the clots may be confusing.

Tumors of the bladder are usually classified as benign papilloma, malignant papilloma, papillary carcinoma and carcino-

ma. It is hard to make distinction in the last three types. All bladder tumors should be considered potentially malignant and classified according to the degree of malignancy, on a basis of one to four according to classification of the Mayo Clinic.

Broders claims that a neoplasm may accomplish only what its cells can accomplish. If its cells are very active the tumor will be very active and consequently more malignant. A papailloma may be of a low degree of malignancy or it may be of a high degree of malignancy. It may be flat and ulcerated and of low degree malignancy or of high degree malignancy. Consequently grading of the degree of malignancy depends upon the undifferentiation of cells in a growth. If three-fourths of the tumor is composed of differentiated epithelium and the other fourth of undifferentiated epithelium it is grade one. If the differentiated and undifferentiated cells are equal it is grade two. If the undifferentiated epithelium composes three-fourths of the growth it is grade three. If there is no tendency toward differentiation of cells it is grade four. Tumors of the first and second grades are usually pedunculated, and tumors of the third and fourth grades are usually flat and infiltrating the bladder wall.

Having determined the degree of malignancy one can then decide what form of treatment will be appropriate. The location of the tumor, its size, the general physical condition of the patient will also have its bearing upon the type of treatment to be employed.

The small papilloma is best treated by some method through the cystoscope. Either by electro-coagulation or chemo-coagulation. The electro-coagulation method is preferable and will give the best results. The electrode is placed through the sheath of the operating cystoscope and the end of the electrode is put directly on the growth. Its pedicle should be burnt first and then the body of the tumor. It will be necessary at times to withdraw the electrode and clean it of the adherent growth. The patient has little or no pain while the growth is being burnt, but will suffer some pain when you approach the bladder wall, and it may then be necessary to reduce the current. This treatment may have to be done several times before the growth is destroyed, and if the tumor does not show a tendency to be destroyed by this method it is best to do a supra-public cystotomy and excise the tumor with some form of cautery. This method of treatment is not without complications, as bleeding when the slough is passed is often slight, but may be profuse and larming, at times so much so that the bladder has to be opened to control it. Calcareous encrustations may form before it sloughs and it may be necessary to remove the encrustations with the cystoscopic forceps.

Chemo-coagulation is applied by introducing a catheter through the cystoscope and applying trichloracetic acid to the growth.

If the growth is an extensive papilloma or the tumor is very large especially those occupying the base of the bladder or trigone, it is better to do a supra-pubic operation and destroy the growth by actual cautery, snare or fulguration and application of radium. There is a great tendency for transplantation of the growth to healthy bladder wall and the abdominal wound and it is necessary to protect same, and when the tumor is removed absolute alcohol may be applied. Diathermy seems to offer as good results as radium and is freer from distressing results such as pain and stranguary. Deep roentgen-ray is also used in this condition. Cystectomy may be done in these cases, transplanting the ureter into the bowel or skin.

If the moderate sized tumor is in such an unfavorable location as to make its surgical removal hazardous, massive coagulation through the open bladder should be used as recommended by Corbus. By unfavorable location we mean involvement of one or both ureters, particularly both,

those involving the neck of the bladder and most of the base. If the growth is large or moderate in size and situated on the bladder vault or lateral walls, surgery is the method of choice, and the growth should be removed by cautery, excision or partial cystectomy, preferably the latter.

CASE REPORTS.

1. H. B., male, aged 32 years, consulted us for hematuria, duration two months, also complained of some difficulty in voiding at times, sudden stoppage of the urinary flow, frequency. Physical examination was negative. Upon cystoscopic examination a small papilloma was seen on the trigone near the right ureteral opening. This patient was treated through the cystoscope by electro coagulation. This was two years ago and there has been no recurrence.

Case 2. Male, aged 60 years. This case illustrates the futility of palliative treatment. This patient consulted us because he was unable to void. He gave a history of bleeding for three years, at first slight but later very profuse. Marked dysuria and frequency. Physical examination;—patient frail and anemic. Examination of chest negative. Heart, mitral murmur, slight degree arteriosclerosis. Blood pressure 140/70. Marked soreness and tenderness over urinary bladder. Cystoscopic examination revealed a growth involving practically the entire trigone and both ureters. The bladder was opened supra-pubically, the growth cauterized. Patient was relieved for one year then had a recurrence, and refused to have anything further done, as he expressed it, he had waited too long to obtain any relief.

Case 3. Male, aged 50 years. This case represents a growth of moderate size. This man came to us with a history of having been recently treated for stricture of the urethra. Gave a history of hematuria for four months, frequency and dysuria. He was advised to have cystoscopic examination which revealed a tumor about the size of thumb on the bladder wall above the right ureter. This was treated by opening the bladder supra-pubically and the tumor removed by excision with cautery. This was a year ago last January and there has been no recurrence.

DISCUSSION.

Dr. Sanderson (Vicksburg): My experience in bladder tumors would not warrant my going into a minute discussion of Dr. Gamble's paper. However, I should like to say that I thoroughly enjoyed the paper, and I think repeated cystocopy is something that should be taken into consideration.

The only other point that I could mention is one that is advocated by Dr. Frontz of the Radiological Institute, who, when fulgurating, insists on the use of the unipolar in place of the bipolar, stating that the results are better and that the danger, even in the hands of very inexperienced men, is much less than with the use of the bipolar; he himself having punctured a bladder at one time.

Dr. E. H. Linfield (Gulfport): The doctor is certainly correct in saying that early diagnosis should be made. Those of you who have cases of hematuria coming to you should look on them with utmost seriousness, because hematuria, originating from any source at all, can be very serious, and some are more serious than others. If you are not capable to look in that bladder and make a complete investigation, you should send the patient to a man who can, as there is a possibility of picking up some potential malignancy that can be nipped in the bud right away.

When you do find a papilloma or any neoplasm of the bladder and after you have cleared up that disturbance, it might be a good plan to investigate the kidney, because it is not unusual that you will find a papillomatous growth in the pelvis of the kidney, and a transplantation takes place by some of the cells floating down and transplanting themselves on the bladder mucosa.

I want to take exception to one point made by the doctor. He stated that in fulguraing these tumors he burns the base first and then the body of the tumor. I believe that Dr. McCarthy, at the Post-Graduate Hospital in New York, suggests that we start at the distal end of the tumor first and burn oward the base, because in doing so you minimize the danger of cutting off a little piece of tumor that may have live cells which could become transplanted if you accidentally missed them.

The trigon is the fixed part of the baldder. The rest of the bladder is elastic and you can excise tumors of that part of the bladder other than on the trigon. It is possible to excise some on the trigon, but I believe electro-therapy is indicated in those cases. Doctor, your paper was fine and thoroughly enjoyed.

Dr. Paul G. Gamble (Closing): I think either the doctor misunderstood me or I said what I did not intend to say. I said to start at the top and come down, because you will get better results that way and it is easier on the patient.

I have nothing to say in closing, except that I do not want to stress again the necessity for an early diagnosis. As I said before, any of us feels mighty badly after an examination has been made of a patient who has suffered for three or four years with bladder trouble (and that is what they always tell you they have) to find out, when it is too late to cure the patient and you have the unpleasant feeling of telling him, that he has a cancer of the bladder and that he should go home and make arrangements to get things fixed up for his family later on.

TRANSFUSION.*

CHAILLÉ JAMISON, M. D.,

NEW ORLEANS.

The transfusion of blood need no longer be defended as a procedure of practical clinical application and of great therapeutic value in many medical and surgical conditions; the advocates of transfusion are now in a position to state boldly its value and to urge its more widespread use. From most ancient times men have dreamed of the beneficient effects which should result from the administration of the "vital fluid" of the young and healthy into the veins of the sick, the wounded and the aged. Thus we find that many references are made to the transfusion of blood in the writings of the ancient Egyptians, who reserved the method for the healing of their princes; it was well known to the old Greeks and Romans, but was condemned by both Pliny and Celsus, though it seems to have been practiced in the Augustan era. During the middle ages the physicians, the poets, and the philosophers considered it an infallible cure for that most terrible of all diseases —OLD AGE. It promised to the aged regeneration, "the fountain of youth." It was thus that the attempt was permitted to rejuvinate the waning physical and mental powers of the aged Pope Innocent VIII in 1492: in this case three young boys were bled to death and the blood thus obtained administered to the patient, though it is not known that it was actually surgically introduced. This famous case resulted in no good to the distinguished patient, and the opponents of transfusion were in the ascendancy for many years thereafter. Harvey's researches on the circulation in 1628 stimulated new and more successful attempts to rehabilitate the operation of blood transfusion, though it is in this year that Colle mentions the procedure as an old one, which he condemns. The first authentic successful transfusion of blood in animals was by Richard Lower at Oxford, in 1664 and, in man was by Jean Denis on June 15, 1667, in France. It is interesting to note that these early transfusions were not from man to man, but were from sheep to man and also that the patients were much benefited and that apparently no reactions of a serious nature resulted. Claud Tardy, of the Faculty of Medicine, Paris, wrote the first book on transfusion in 1667 and reasoned that this operation should work better on man than in animals, and considered it both more convenient and less dangerous to do the vein to vein rather than the artery to vein operation. He indicted the technic and presupposed that the donor would not give an amount of blood so great as to injure him. While recognizing animals as donors he suggested that humans were better. About this time two scientific groups arose, one violently opposed to the other, who heatedly discussed this question. The climax came when Denis, who lead the small group of transfusers, was involved in litigation over the death of a man that followed a few hours after a transfusion, and through Denis was exonerated, this was made the excuse for the edict of Chatelet which outlawed the practice of transfusion on man without the approval of the Faculty of Medicine of Paris. For well over a hundred years following this time transfusion fell into disrepute and practically is unmentioned in the literature of the seventeenth century. It was not until 1818 when Blundell, a surgeon, was stimulated, through the loss of a case from uterine hemorrhage, to extensive experiments on dogs which resulted in the serious promulgation of the probable efficacy of the transfusion of blood in hemorrhage. Blundell's long series of experiments on dogs was followed by nine human transfusions, which gave the very satisfactory result of six cures in desperate cases. The main contributions which resulted from this work were; the

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ease, convenience and safety of syringe transfusion without making the blood insufficient for vital function, and the life saving efficiency of a quantity of blood for transfusion smaller than that lost in the hemorrhage. It is extremely interesting that in 1853, even though there is no record of a transfusion having been done in this country, a committee appointed to investigate the operation of transfusion reported to the Fourth Annual Meeting of the Louisiana State Medical Society recommending the adoption of Blundell's syringe technic.

In spite of this however, only about a dozen human transfusions were done in this country up to the present century and blood transfusion continued to be a novelty without general acceptance or use. With the begining of the twentieth century came the recognition of isoagglutination and the incompatibility of human bloods, which was destined to bring about the consumation of that dream of long ago and to allow the free and safe mingling of the blood of one human with another. It is to Moss that we owe our present knowledge of the four groups into which all humans fall, and that those of the same group may safely receive blood from one another. It is recognized at the present time however, that blood should never be given until the serum of the recipient has been shown to contain no agglutinins for the blood of the donor; as this is a very simple laboratory test, which can be performed in a few minutes, and is much easier than finding the "groups" to which the donor and recipient belong, it has tended to simplification of selection of the proper donor. It is this knowledge that has made transfusion entirely safe. It is not necessary, except in very rare cases, to know that the sera of the donor is compatible with that of the recipient or that it agglutinates the recipient's corpuscles, though it is recognized that these facts may occasionally cause slight reactions of little importance. It is also known that incompatibilities of the white cells exists, but that such incompatibilities cause no trouble.

What is the length of life of the transfused cells? Do such cells perform their function? The latter question can be answered positively in the affirmative, at least for the more important functions of oxygen and carbon-dioxide carrying, because of the complete restoration of these phenomena in exsanguinated men and animals following the transfusion of blood. The answer to the former question is much more complex but the investigations of many different observers seems to point to a survival of the donated corpuscles for from 80 to over 100 days, but "the variables are so numerous and the problems so complicated that the length of the functional life of the red blood cells may be considered to range within wide physiological as well as pathological limits, subject to an interplay of many diverse influences". So far as actual practice is concerned this question might interest us because its correct answer would indicate when the transfusion should be repeated: as a matter of fact, however, this is answered quite perfectly by counting the patient's red cells, though it, of course, does not take into consideration regeneration of cells.

As soon as it was shown that blood could be safely transferred from one individual to another, and that its therapeutic properties were great and more or less lasting, the method of such transfer became the subject of great and immediate interest. The outbreak of the World War, at about this time, with the innumerable cases of shock and hemorrhage occuring in the wounded gave an added and very acute impulse to the problem. Every method of transfusion now in use, is followed by occasional reactions, which may be mild, severe, and in extremely rare cases fatal; some methods are much more likely to be followed by reactions than others. The number of procedures is al-

most as great as the number of transfusers, each advocating his own method or instrument. It is safe to say that the essentials of every technic are the assured delivery of a known amount of nonhemolysed, uncoagulated blood to the recipient. The modus operendi should depend upon the circumstances of the individual case—the condition of the patient, the circumstances under which the transfusion must be performed, and last, but not by any means least, the method with which the operator is most familiar an adept. This important and practical problem may be best approached by the consideration of the four fundamental principles: (1) Direct or immediate transfusion from vein to vein, or from artery to vein, with or without the use of a cannula; methods based on this principle are now obselete and only of historical interest: (2) Indirect or mediate transfusion, by the use of special syringes or parrifined tubes, with or without anticoagulants; these are the modern methods, which have been used over a long enough period, so widely and so successfully, as to arrest attention and study; (3) Auto-transfusion, by which is meant the reintroduction into the veins of the patient of blood recovered from the pleural or peritoneal cavities following recent hemorrhage into such cavities; inasmuch as such cases are rare, and only encountered by the surgeon, this method may be dismissed as unimportant, though it should be born in mind that blood so obtained is only fit for reintroduction when it is known to be uncontaminated and after it has been carefully filtered through several thicknesses of gauze: (4) Intraperitoneal transfusion, which is the unquestioned method of choice in very young children; it seems that blood introduced in this manner is fairly rapidly absorbed in an unaltered state and retains many of its functions.

The question of methods then, at least so far as applies to the adult, may be answered by the statement that indirect transfusion is the method of choice, either with or without the use of anticoagulants. This merely narrows the question down and does not fully answer it. So far as the use of an anti-coagulant is concerned, only one need be considered, and that is sodium citrate: by the use of this chemical those reactions which lead to coagulation are arrested permanently, provided a sufficient amount comes in contact with the blood immediately upon its release from a vein, this is brought about by puncturing a vein with a large bore needle and allowing the blood to flow into a receptacle containing a suitable solution of the citrate, or by aspirating blood into a syringe containing such a solution. The citrated blood is then introduced into the veins of the recipient by gravity or other suitable technic. This is known as the Citrate Method which is very popular and the use of which is very widespread; this popularity is due to many different factors, the advantage of some of which cannot be denied; it is easy and certain, no trained help is required, but its greatest and at times inestimable advantage over all other methods is that as soon as the blood is thoroughly in contact with the anticoagulant it remains unchanged and its use may be delayed for hours or it may perfectly safely be transported for long distances, which means that it is not necessary for the donor and the recipient to be at the same place at the same time; the obvious advantage of this fact often makes this the only feasible procedure.

It is unfortunate that this method has certain inherent disadvantages and definite contraindications to its use in some diseases. There is no doubt that reactions following the introduction of citrated blood are far commoner than with whole blood and may be expected in about 40 percent of cases; it is my experience, however, that such reactions are not of a severe nature and may be minimized by very careful technic. Though such reactions are usually not marked enough to

serve as a contraindication even in very sick or weak patients, their frequency and occasional severity make other methods much more desirable when their availability is equal. There seems to be no question that citrate definitely injures the platelets and completely inhibits the action of those of the donated blood, which, at least theoretically, forbids its use in purpura; this fact suggest, at least, that in other of the blood dyscrasias, where there is a tendency to bleed that citrated blood is not desireable. On theoretical grounds, it would appear that blood untreated by chemicals, by contact with air, by stirring, or prolonged contact with glass-ware, or steel, should certainly be less altered and therefore be better able to function normally and be less productive of reactions. Such is the case with the indirect transfusion of whole blood by any of the better known methods, certain of these fulfilling theoretical requirements better than others. It must be remembered that the indirect transfusion of whole blood is much more technical than the citrated, and far more uncertain and that the instrument selected is usually costly and requires much care, and that when reactions do occur they are likely to be for more severe. In general, it may be said that procedures which require much help, elaborate preparation of instruments or the routine surgical exposure of veins are not of much value, at least in medical practice.

The reactions following transfusion are of varied type. There may be slight headache, malaise, urticaria, slight fever, chills and high fever, appreciable hemolysis with hemoglobinuria, acute anaphylactic shock, etc. The most frequent noteworthy reaction is a rise of temperature and a chill. A sudden pain in the back developing in the course of transfusion is a danger signal not to be ignored and demands prompt cesession of the procedure, because this symptom usually means that the blood is incompatible—

Indications: Shock and hemorrhage—before and after surgery.

Anemia, secondary to hemorrhage—

Infections—Acute, etc.—Erysipelas.

Leukemias.

Hemorrhagic diseases.

Chronic diseases.

Old age—Do not delay.

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DISCUSSION.

Dr. Maurice Gelpi (New Orleans): I am sure that you have all enjoyed Dr. Jamison's splendid paper as much as I have.

While the question of transfusion goes back almost—well actually—to antiquity, as Dr. Jamison has shown us, attention has been called to the fact that the development of the methods in common use today is modern. There are certain high lights which are stepping-stones, so to speak, to the modern method of transfusion. The first one is the work of Lohr of Oxford in 1860, mentioned by Dr. Jamison, consisting of the successful transfusion of blood from dog to dog. Following this, about 1662, Sir Christopher Wren successfully transfused blood of a sheep to a human individual. Following this was the next stepping-stone, transfusion of defibrinated blood as performed by Bishop. While this work was not altogether satisfactory, it appears to be a step forward in the right direction. This was in 1835. But Crile in 1898, was the real one who stimulated great interest by transfusion of human blood to humans by his direct method. Undoubtedly, also, the material furnished by the World War stimulated the use of transfusion more than ever before.

The usual indications for transfusion are: hemorrhage, first of all, under which might be included, hemophilia and purpura; next is pernicious anemia and leukemia; next is carbon monoxide poisoning; and last, sepsis or septicemia.

In acute hemorrhage no one can witness the marvelous transformation that takes place in an individual upon transfusion striking from a therapeutic standpoint. In any type of acute hemorrhage, the results are splendid, provided the

patient has not already bled too much. With hemophilia, the results may not be quite so remarkable and so brilliant, but are quite satisfactory, neverthelss. In pernicious anemia, except as preparatory measure for splenectomy, and perhaps to prolong life, the results are not altogether satisfactory.

In carbon monoxide poisoning, indications for transfusion are rather clear and the results good.

In sepsis or septicemia, there are still some that believe that even in acute sepsis the indication is to transfuse. My opinion is that the method is of no value, but might even cause trouble and be a source of danger. My own experience, although limited only to citrated blood, is that results have been most unsatisfactory. This refers to acute sepsis only, to bacteremia. It might be of some value for the secondary anemia of chronic sepsis.

As regards methods, while the paper does not lay stress upon methods, it is difficult to talk about transfusion and not say something on this subject. The development of transfusion has come to the point where it has reached the utmost simplicity. That always appeals to me. The older I get the more inclined I am to select a simple method that produces the same results as a complicated method. Therefore, the citrate method appeals to me, and the method from donor to recipient by means of syringe, appeals to me also. The two essentials for transfusion therefore are always available, a simple method and blood. Well appointed hospitals always make provisions for donors and besides we can always get a volunteer donor. On account of the dramatic phase of this work, people are always ready to give blood. If I may be forgiven a little levity, I will illustrate by a story some of you may have read in a recent A. M. A. Journal. It seems that a doctor walked into a club room where there were a number of men and said: "Gentlemen, I have next door a very sick man. I need only one thing, but I need that very badly. It must be pure. It must be wholesome. I need only one quart—" One man jumped up: "Doctor, I will give it to you!" When they walked into where the patient was, the volunteer began to disrobe. "Why are you doing that?" asked the doctor. "Did you not ask for a quart of pure blood?" "Why no" said the doctor, "I merely wished a quart of whiskey." "Why," exclaimed the man, "Do you think I would give my good whiskey to a man I have never seen before!" "I thought you wanted blood." This illustrates the ease of obtaining blood and incidentally the difficulty of obtaining good whiskey.

But seriously, we have always at our command the necessary simplicity of method and the available blood, therefore, under these circumstances, there is no reason why today, any individual should suffer for lack of transfusion.

Dr. Adolph Jacobs (New Orleans): Just a few words concerning the amount of blood to be given in transfusion.

Dr. Landry mentioned he had given 200 cc. with practically no reaction and on the other hand about two weeks later, 500 cc. and the patient died—probably with acute dilation of the heart.

I mention this particularly in cases of septicemia where the myocardium has become so weakened by toxins, that it cannot take care of such a large load at one time. It is better to give small quantities and repeat as frequently as necessary.

Dr. H. W. E. Walther (New Orleans): I prefer rather to allign myself with those who look upon things with a suspicious or questioning attitude. I rather, from my own personal experience, feel more keenly the reactions that are noted where we fail to match bloods as well as type them. I have never had any experience of fatality in transfusing and in the last few years I have used it routinely, immediately following operations on the aged in urinary surgery, with very excellent and happy results.

It has been brought out here, but I would like to stress the point about the alarming reactions that sometimes are met with where the bloods are not matched as well as typed. In some of our institutions here we have members of the interne and externe staff and medical students who are placed on a donor list and they are all typed and are supposed to match with the patient. I have, on several occasions, to my great embarrassment, used typed bloods without matching them and seen my patients have chills (unfortunately sometimes in front of the family) that last an hour to an hour and a half. It is quite alarming to see the patient have one of these chills and then fever to 105° and 106°. I had one case recently go up to 107°, where the blood had not been matched, and personally, where I am concerned, I do not feel as though I want to use a donor that does not match as well as type to my patient. I have never used citrated blood; all of my work has been with whole blood given with the Head appartus which is simplicity itself.

Dr. E. H. Walet (New Orleans): About using the same donor twice: I recently had a lady on whom I had to do a hysterectomy on account of submucous fibroid, expelled in vagina, and involution of the uterus. A relative of hers was used. Dr. Bayon administered two transfusions

by a simple direct method. The first a week before the operation, the second after operation. The transfusions were 400 cc. and 500 cc. respectively. She showed absolutely no disagreeable symptoms.

Dr. King: How far apart were the transfusions?

Dr. Walet: Within three weeks.

Dr. E. C. Faust (New Orleans): A great deal has been said here about blood groups and transfusions. I am wondering whether attention has been given to the possibility of having a latent infection of malaria in the blood transfused. I know of a number of patients in which that was the case, in which the blood of the donor had been found to be compatible in every respect, but where examination of the blood was not made microscopically before transfusion. It was not discovered until afterwards that the donor's blood had a small number of malarial plasmodia which, to the patient who received the blood was a rather serious consequence. In a few days he had a very large number of malarial parasites in his blood. So it seems to me this is an important point to consider. The same precaution obtains, of course, with respect to relapsing fever and other spirochetes carried in the blood streams.

Dr. Jerome Landry (New Orleans): There is one thing I would like to bring out about transfusions; first I want to endorse what Dr. Johns has said about blood matching.

Tht absolute necessity of matching blood is borne out by a case I had recently. I had a very prominent clergyman from the country, suffering with permicious anemia which necessitated blood transfusions. We used the interne, who was a universal donor, and the patient fell in group compatible with the donor. I used about 200 cc. of this blood. About two weeks afterwards we transfused this man again and took 500 cc. blood from same donor without matching, in about an hour after back in bed he had a severe chill and complained of severe pain in epigastrium and back, with a constant desire to go to stool. In the course of an hour he was dead.

I bring this case up to show that transfusions are not without danger and the necessity for matching blood because I feel that this accident might not have occurred if these two bloods had matched.

Again recently I had occasion to transfuse a lady and while we found her proper group, it took fifteen different individuals before we could match this lady's blood.

Another point I would like to bring out is the time to transfuse a patient is when this idea comes to you: "Does this patient need transfusion?"

Dr. F. M. Johns (New Orleans): I have greatly appreciated Dr. Jamison's very comprehensive paper and I would like to further emphasize the appeal for what I know Dr. Jamison upholds—that is, whole blood transfusion.

Citrate undoubtedly damages the blood cells and completely destroys the complement. Not only does it destroy the complement, but it also seriously affects the patient. I have had occasion recently on two instance to withdraw blood an hour following transfusion of citrated blood and observed a definite drop in the natural complement tibre. This may account for some of the lack of success we have in the septic cases that Dr. Gelpi mentions.

While it is true that all people fall into four groups which make them compatible and incompatible, it is certainly wise to further directly match patient and donor.

Dr. E. L. King (New Orleans): Just one point in corroboration of what Dr. Landry has said.

We find that transfusions for peresperal septicemia have value. In those cases we use repeated small transfusions of 200 to 300 cc. blood, we have also noticed that blood from the same donor gives a reaction the second time where it has not done so the first time. Apparently some sensitization has developed in that patient, hence we make it a point not to use a donor a second time.

Dr. Peter B. Salatich (New Orleans): All agree in giving blood in hemorrhages, and should transfuse patients when they have hemorrhaged excessively, but this is not so universal in persistent oozing.

It is surprising how small an amount of blood will control—especially utreine oozing. I had a case of a young girl, probably the second time she menstruated. She had become almost exsangunated and everything had been tried.

I gave her a transfusion, not so much to stop the oozing, because as soon as she came in I packed her, and in three hours packed her again, But I gave her a transfusion to pull her up, and to my surprise not another drop of blood did she pass. So I remember this experience every time I have this sort of oozing.

Difference between citrate blood and direct. Had occasion to use both on the same patient, a child, the citrate method occasioned a severe chill which gave some concern. I then gave her direct transfusion with absolutely no reaction, no rise in temperature and no chill. I used it on another case an adult, with the same experience.

In your citrated blood or glucose you can give a dose of morphin, which will, in most instances control the chill. If you will just drop in ⅛ or ¼ grain of morphin into your solution, you will have no reaction eight out of ten times.

Dr. J. S. Hebert (New Orleans): I am sure that anyone here this evening would like to thank Dr. Jamison for presenting the subject "Transfusion" in all of its stages of development to the present day. I would like to tell Dr. Jamison that in Obstetrics we have a specific application for this life-saving operation. Severe anemias, so-called pernicious, beginning during or shortly after pregnancy, not due to obvious complications, but apparently resulting from the gravid state *per se*, are now cured by this treatment.

Larrabee, Aubertin, Esch and others have developed this important subject so that today it is a very interesting chapter in Midwifery.

In the last five years, we have observed these cases, six in number in our service at Charity Hospital and we can substantiate everything claimed by these authorities. I would like to repeat that in these cases it is a life-saving operation because I believe that unless transfusion is done these women die.

Dr. Urban Maes (New Orleans): I agree with Dr. Faust as to the importance of routine examinations of the blood, having learned the lesson from a patient with pernicious anemia. I used her brother for a donor, and, because I was in a hurry, I omitted the examination and simply asked him whether he had ever had a blood stream infection. When he denied it, I did the transfusion. Two weeks later the patient broke out with a profuse eruption, and the dermatologist whom I called in consultation made a diagnosis of lues. Her Wasserman proved to be strongly positive. At the end of six weeks of active treatment it was negative, and there was no further trouble.

I might say that this patient had a rather interesting history. I did a splenectomy on her for pernicious anemia, in the days when this condition was being treated by that method, and her blood, as Dr. Johns' repeated tests showed, remained entirely normal for four years afterward. I know of no other instance of a patient with pernicious anemia who recovered after splenectomy and remained well for a period of years except this one who was transfused with blood that carried a luetic infection.

Dr. Chaille Jamison (closing): I wish to thank the gentlemen very much for their discussion. I regret, that we did not hear more discussion of the use of transfusion in medical cases, as I am very sure that transfusion has a large place, as yet scarcely touched, in medical science.

Dr. Walther brought up the question of reactions. Now reactions at the present day occur from two causes. First of all they occur from incompatible blood, and I believe I am as qualified to speak on that as nearly anyone. The paper I read here ten years ago went into, to some extent, the methods that we used on the front of France. I had occasion there to transfuse about four hundred cases. Of course we made mistakes. We did get considerable reactions and reactions came on late. Jaundice is usual from unmatched blood.

I wish to say a word here about types, I wish I could say that if a man falls into type four he could give blood to all. This is true, but it has its exceptions. Blood should never be given to a man until there is direct typing. There may be excuses for that when you are in a great hurry. You may give blood that is perfectly compatible from donor to recipient, and in a week if you give that same blood without matching you are very likely to be giving entirely wrong blood to the recipient. It may be due to sensitization or changing, but it has been demonstrated that it does so. If you take a man whom you think lies in the group of universal donor and you give that blood, you may not give it next week but perhaps the week after, you are going to get violent reactions from incompatible blood, but it will not occur if they match perfectly.

Now Dr. Walther brought up the question of reaction he got. I can again say that that was not due to matching of blood. If he had given 500 cc. of blood that was incompatible he would not have gotten by with mere reaction. Wherever you give citrated blood you will get a reaction. I would not consider 104 degrees so very bad. Reaction might have value in some cases but it is so common as not to be noticed. It cannot be avoided. McLester (?) stated it was due to the rapidity with which the citrated blood went into the veins. If you let it go in very slowly you would not get as warm reactions. All this is true, but as I said you can minimize these reactions; there is no getting around the fact that in a large number of cases you will have a violent reaction and unless the family knows about it beforehand, it will scare you both out of your wits, but it doesn't mean anything.

You know when we are interested, we talk around and get information from all sorts of sources. I met a very well known surgeon just a week or so ago. He had been a student at the Crile Clinic and he had done transfusions at the front in France. He told one of the most interesting things, that before the days of typing, when Dr. Crile did direct artery to vein that he never got a reaction. Now this man knows what he is talking about. We have not yet gotten to the end of reaction, but I refuse to believe anyone

who will tell me that whole blood will never give reactions.

I would like to add that in pernicious enemia we find many cases who will not improve until we give transfusion. We have used transfusions very much in my service. The other day in the ward next to mine, transfusion of whole blood was given to a man with hemorrhage in typhoid and the blood apparently ran right through him. If you are dealing with large blood vessels transfusion is not good until that hemorrhage is first controlled.

I have answered Dr. Landry's question about the repeated use of the same donor—that should not be done. I have answered Dr. Bass on typing of blood, also Dr. Salatich, who has a very nice method of transfusion. I wish to thank Dr. Johns very sincerely for his observation. I should have had sense enough to know that without his bringing it to my attention again. I should know that the minute citrate touches the blood it destroys the complement. That is a very strong argument against the use of citrated blood. Dr. Faust, I did not have time to go into any detail, but of course when we do direct transfusion we always have a Wassermann done and exemination made for malaria. I think that perhaps the danger of malaria in transfusion is greatly exaggerated. We do not give malaria in that way. Perhaps these patients may have had lues or malaria before transfusion.

I wish to say to Dr. Jacobs in regard to the amount of blood it depends strictly on the individual, but that with our lack of knowledge about blood volume we have to be careful about giving large amounts of blood. A small amount, as Blondey says, slowly assimilated, is more likely to do good. The proper dosage of blood is the smaller amount.

I think, Dr. King, that you and I saw one of these anemias of pregnancy about five or six years ago.

One of the things that interested me most is what transfusion will do on the aged. That is an old question. I do not think it will do any harm and it might do good.

In ending, I want to say in old days transfusion of blood was practiced from animal to man, but directly into the vein. They had little or no reaction. I did this work this summer but had to citrate the blood. Animal blood can be given to man. Animals fall into groups just as man does, perhaps more complicated groups.

REPORT OF THE PASTEUR INSTITUTE OF THE CHARITY HOSPITAL FOR THE YEAR 1929.

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NEW ORLEANS.

During the year 1929 the Pasteur Institute of the Charity Hospital administered anti-rabic prophylactic treatment with material prepared as generally indicated by Semple. We desire to present a tabulation of the treated cases, as well as certain statistical considerations thereon; brifly record methods of vaccine production and make some observations on post vaccinal results.

PRODUCTION OF VIRUS.

All of the material used was produced with a strain of fixed virus secured through the kindness of Parke Davis & Co. Subdural injection of full grown rabbits with emulsions of infected brain stems or cords are accomplished in the usual manner. With the advent of complete paresis, usually on the seventh day after inoculation, the animals are killed by ether narcosis in order to avoid the so common agonal bacterial invasion of the central nervous system so often noted when such infected animals are allowed to die. The dead animals were immersed in 5 per cent lysol solution for 5 minutes, skinned and again dipped in fresh 5 per cent lysol solution. After light external flaming the cord and brain were removed under strict asceptic conditions. Cultures from the internal and external portions of the brain and cord were made in .05 per cent dextrose broth contained in fermentation tubes. An 8 per cent emulsion of brain-cord in normal salt solution was now prepared, filtered through three layers of fine linen and 1 per cent carbolic acid added. The carbolized emulsion was incubated at 37.5° for 24 hours, after which time it was diluted to 4 per cent by the addition of normal salt solution. Of this emulsion, 0.5 mil portions are injected subdurally into each of 2 full grown rabbits and 15 glucose

*From the Department of Pathology of the Charity Hospital, New Orleans.

broth cultures in 5 series of 5, 10 and 20 drops made, with subsequent similar subcultures made from these original cultures after they have been incubated for 5 days at 37.5°. If the test animals were living and well 3 weeks after injection, and if not more than one of each cord-brain culture, and not more than one emulsion culture in any series showed contamination with any type of organisms, the material was considered ready for use and a dating of 3 mos. from date of carbolization allowed.

METHOD OF TREATMENT.

The following plan of treatment was used, all injections consisting of 2 mil portions of virus emulsion, except in children under 3 years of age to whom 1 mil portions of material were injected at a treatment:

Head Injuries:

21 days—injections twice daily for first 7 days, once daily thereafter.

Injuries to trunk or extremities:

1—If multiple and severe, same treatment as for head injuries.

2—If slight and treatment begun within 6 days after injury—15 days, one injection daily.

3—If slight and treatment begun more than 6 days after injury—18 days, one injection daily.

Injuries by unlocated animals:

1—With no suspicious circumstances—14 days one injection daily.

2—With suspicious circumstances, same treatment as for similar type injury by proven rabid animals.

No actual injury, but handling rabid animal or suspicious animals—18 days one injection daily.

TREATED CASES.

766 patients were treated during 1929. They are classified in the following categories as suggested by the International Rabies Conference of the League of Nations in order that the statistics of various institutions may be comparable.

A—Animals proven rabid (microscopic or biologic test).

B—Animals diagnosed as clinically rabid.

C—Animals only suspected. (Stray, destroyed, or in such a state when received that the brains were unfit for examination).

D—Animals alive and well after an observation period of three weeks, or with negative brains examined after the observation period.

E—Cases undergoing treatment without actually having been bitten (handling positive or suspected rabid animals).

Table I, tabulates the treated cases in each category together with the type of injuries and deaths. Under the heading "Injuries to multiple sites" in this table, injuries to the head are not included. Table II, tabulates the age of treated cases; table III, their geographical distribution in Louisiana.

In 189 treated cases actually injured, the injury was infected through the clothing, in 374 to the bare skin. 386 treated cases received tetanus antitoxin and nitric acid cauterization of site of injury before administration of anti-rabic treatment; in 43 such cases the injured site was treated with iodine; in the remaining number no local treatment was administered or no history of such treatment was obtainable.

POST VACCINAL RESULTS AND COMPLICATIONS.

One patient, P. L., 7 years old, (C. H. 98,-321) died of rabies 41 days after completion of treatment. He had been severely injured about the face by a proven rabid dog and treatment was begun 14 hours after injury. No post vaccinal paralysis were encountered in this series. Local reactions at the site of inoculation, usually beginning after the sixth or seventh injection and appearing with from 1 to 10 injections thereafter were

noted in 8 per cent of cases. In two cases a disagreeable generalized urticarial-like rash persisting for 2 or 3 days and coming on early during treatment was noted.

Table 1—Classification of Patients with Location of Injuries and Results Obtained.

Category	Injuries to Head		Injuries to Body		Injuries to Superior Extremity		Injuries to Inferior Extremity		Injuries to Multiple Sites		Total	
	Treated	Deaths	Treated	Deaths	Treated	Deaths	Treated	Deaths	Treated	Deaths	Treated	Deaths
A	38	1	23	0	161	0	103	0	11	0	366	1
B	2	0	0	0	9	0	6	0	1	0	18	0
C	25	0	7	0	80	0	54	0	6	0	172	0
D	7	0	1	0	17	0	12	0	0	0	37	0
E	....	--	....	--	.....	--	.....	--	.....	0	203	0

Table II—Age Classification of Patients Treated.

Age-Years	White		Colored		TOTAL
	Male	Female	Male	Female	
Under 1	0	1	0	0	1
1-2	21	17	3	1	42
3-4	54	22	5	4	85
5-9	108	63	15	11	197
10-19	86	45	10	4	145
20-29	42	33	9	12	96
30-39	34	51	1	4	90
40-49	26	22	1	5	54
50-59	16	18	2	1	37
60-69	6	4	1	1	12
70-79	2	3	1	1	7
Over 80	0	0	0	0	0
	395	279	48	44	766

Table III—Geographical Distribution of Patients Treated.

Parishes—	
Allen	2
Ascension	15
Assumption	2
Avoyelles	7
Concordia	1
Evangeline	2
Iberia	1
Iberville	1
Jefferson	45
LaFourche	1
Orleans	598
Plequemines	1
Pointe Coupee	9
St. Bernard	17
St. Charles	16
St. Helena	3
St. James	9
St. John the Baptist	23
St. Tammany	3
Tangipahoa	4
Terrebonne	2
Washington	2
W. Baton Rouge	2
	766

Table IV—Time elapsing between injury or exposure and beginning treatment.

Days	Patients	Days	Patients
1	215	16	2
2	92	18	2
3	79	19	1
4	56	20	1
5	53	21	5
6	58	22	6
7	44	23	4
8	48	24	2
9	23	25	1
10	24	30	3
11	14	31	1
12	7	34	1
13	12	53	1
14	11		

FRACTURES AND FRACTURE DISLOCATIONS OF THE CERVICAL VERTEBRAE*

H. THEODORE SIMON, M. D.

NEW ORLEANS.

The ever increasing use of the automobile with its associated increasing accident toll, together with industrial mishaps and our climatic and aquatic location which makes swimming and driving a favorite pastime has so greatly increased injuries to the cervical vertebrae that they are no longer rarities. In fact it is the comparative frequency of such injuries which has prompted this paper.

Balensweig in writing on this subject rightly says, "the term fatality" and "permanent disability" invariably arise as a word picture in the mind of both the physicians and laymen when thinking of fracture of the spine.

Taylor states that of spine injuries as a whole of 60 per cent are fracture dislocation, 20 per cent fractures alone and 20 per cent are dislocations alone without fracture associated. In my experience and hospital records later stated the percentage of dislocations alone has been zero; in other words, there is a question in the mind whether a dislocation of the vertebrae can take place without some evidence of fracture to the articulations, etc. All texts however recognize dislocation as a definite entity.

The records of Charity Hospital in this instance are very interesting. In the five years from July, 1918, to July, 1923, there were 45 cases of fractures and fracture dislocations of the entire spine. Of this number 14 involved the cervical region and it is amazing to note that only one case recovered, there being a mortality of 92.8 per cent. The five-year period from July, 1923, to July, 1928, sees an admission of 130 cases of this injury to the vertebra, an increase of nearly 200 per cent. And those involving the cervical region come to 51 (an increase of nearly 270 per cent). Of these 51 cases, 22 died, 19 in which there were no cord involvement improved and were apparently cured, 5 in which cord involvement existed improved and 5 deserted before any definite data was obtained. In other words, there were 27 cases of cervical injury with cord involvement, 22 of these died and 5 recovered, showing a mortality of 81.5 per cent.

In the ten years series which totaled 14 plus 51 or 65 cases there were 54 of fracture alone, 11 cases of fracture dislocation and no case of dislocation alone, further substantiating the improbability of a dislocation occurring without a fracture.

To further demonstrate the increase in these injuries in private practice alone I have seen 7 cases of cervical injury in the past five years, in every case there was cord involvement. Three of these cases were seen in consultation, two died, one recovered. The remaining four were treated by me, two died and two recovered; pressure symptoms in each instance clearing entirely as the results of traction and fixation.

The vertebrae more easily injured are the vertebrae in which there is more motion, namely, the fourth, fifth and sixth cervicals. This injury can be from (a) direct violence whereby the arches are usually fractured; (b) by a fall on either the head or buttocks in which the bodies of the vertebrae are usually crushed; (c) by forced flexion or extension of the spine, this causing a fracture of the bodies and articulations with associated dislocation.

The prognosis is in direct proportion to the amount of injury to the spinal cord together with the nearness to the medulla oblongata and the foramen magnium. Injuries to the first and second cervicals usually cause instant death, the percentage

*Read before the Orleans Parish Medical Society November 28, 1929.

of recovery being less than 2 per cent. Injuries to the third cervical involve the phrenic nerve which leaves the spinal canal between this vertebra and the fourth, resulting in paralysis of the diaphragm and usually death with a few hours. Injuries to the remaining cervical vertebra although grave offer a probability of saving a certain proportion of cases.

Spinal cord injury can be (A) immediate from pressure, of (a) fractured arches or (b) dislocated bodies. (B) Gradual from (a) hemorrhage, (b) edema, (c) inflammation. Occasionally a fracture alone of the body is seen with complete cord severence, in which instance it is thought that there has been a dislocation which has reduced itself spontaneously.

The resulting symptoms of this cord injury can be anything from a slight hyperasthesia or anesthesia to complete paralysis of the extremities, trunk, diaphragm, bowels and bladder, depending in the amount of cord involvement.

The diagnosis of fracture or fracture dislocation is obviously made by roentgen-ray examination, and here one must remember that a lateral as well as an anterio-posterior view is absolutely essential. Of course there is the pain at the sight of injury, muscle spasm here also, sometimes deformity which if present is of the kyphotic type, occasionally crepitation of bone fragments (which should never be intentionally elicited) and the above mentioned pressure symptoms where the cord is involved. It suffices to say that if a person has received an injury and one suspicious spine involvement do not manipulate or put patient in an upright position, better place on a stretcher, immobilize head as best can and get to an institution where roentgenograms may be taken.

The treatment differs with each case, depending on cord involvement. If no cord injury is present, put the patient in bed, sand bags can be placed on either side of the head, traction may or may not be applied and after several weeks a plaster case (minerva jacket) can be put on allowing the patient to get around very comfortably.

If there is complete cord severance little can be done and nothing can be hoped for. As a matter of routine, however, immobilization by sand bags, traction by some form of head gear, further immobilization on a Bradford frame can be instituted and if there is no improvement with the patient still living, the use of the air or water mattress lessens the bed sore formation and tends to slightly more comfort.

Partial cord injury with a fracture of the vertebral arches should be operated at once. Following this laminectomy traction and fixation are every bit as necessary and should be religiously applied.

Partial cord injury with roentgen-ray evidence of a dislocation of the bodies calls for no operation, but it suggests immediate firm fixation on a Bradford frame, sand bags to the head and immediate heavy and firm pull by weight and pully traction using the leather jury mask or better the single band webbing strap as shown, thereby reducing the dislocation.

Between these clear cut cases with specific treatment indications come a series where one is dubious as to whether, traction or laminectomy is indicated. My only suggestion is to consult a neurologist and anyone else who has had some experience in this type of work and be guided by his or their opinions.

Following several weeks of traction or laminectomy in the patients who are improving a plaster jacket, including the head, must be applied. After several months of such casts one can change to a leather brace made the same as this cast. This brace should be worn for a long period and by long period is meant until there is roentgen-ray evidence of firm bony union which usually takes from nine to twelve months.

In conclusion:

(1) Fractures and fracture dislocations of the cervical spine are not rarities.

(2) Dislocations alone have not been encountered and it is doubtful if they occur with the frequency reported in texts.

(3) Cases without cord involvement require the same amount of fixation.

(4) All cases with cord involvement do not demand laminectomy, some types being much better treated by traction.

(5) All cases require fixation until there is roentgen-ray evidence of bony union.

DISCUSSION.

Dr. Paul A. McIlhenny (New Orleans): First I wish to compliment Dr. Simon on his excellent paper. I did not know that even Dr. Simon could put so much in such a short paper and when he asked me to discuss this subject I through he would at least leave me something to say.

The majority of fractures, or fracture dislocations, in the cervical region are produced by direct force to the head, and, occasionally by a fall on the buttocks. We then find a second type in which the fracture has been caused by a sudden forward bending, or posterior bending, of the neck, the jack-knife of the cervical region. Fractures and fracture dislocations of the cervical spine, in the majority of cases, are of the lamina or articular process rather than the body of the vertebra; in fact, you might have almost two-thirds of the body destroyed and not a deformity occur, so that we must be very careful, in manipulation, to determine the extent of the injury.

Roentgen-rays of fracture of the spine, A-P and lateral views, especially in the cervical region, should not be taken unless a physician is present. That is a point I would like to stress. And by all means when fractures of the odontoid process of the second cervical are suspected for an unguarded movement when there is a fracture of the odontoid process will possibly result fatally. Cases have been reported where two weeks after injury it was found necessary to change the dressing in order to put on more permanent fixation and a sneeze or cough has so displaced the injured membrane that death has ensued. So I would emphasize the necessity of gentle manipulation—no manipulation if posisble—and in all cases of cervical vertebral injury, whether symptoms have developed immedately or not extension. If there are no symptoms immediately following injury—symptoms may develop later—I believe extension should be applied, as shown by Dr. Simon, applied very gently without manipulating the cervical region at all, or by a Barton bandage applied to the head, which supports it under the chin and under the occiput.

Dr. Simon has stressed immobilization. That cannot be stressed too greatly. Fixation in a plaster cast supported by the pelvic girdle rather than one supported by the shoulder, because the patient moves his shoulder and sooner or later the bandage gets loose; frequently he is uncomfortable and we may find it necessary to change it. Incorporation of the chest with a Minerva jacket, supporting the chin, and the occiput made comfortable by adequate padding will insure a favorable result in the majority of cases where there is no injury to the cord.

I have been fortunate in having been called in consultation in a number of such cases and had the opportunity of seeing many of them treated. One case I recall very intimately, I saw within a half hour after he was hurt; he then had symptoms in both arms. We applied immediate extension and within an hour there was return of sensation and subsidence of pain. That case was kept in extension for a week with sand bags supporting his head laterally; then a Minerva jacket was applied. He is now back at work. On the other hand, a very simple injury may result fatally. About ten years ago a case came into Dr. Parham's service with a fracture of the transverse process on the left of the third cervical vertebra; he had a numbness of the right arm—extension relieved this numbness. Unfortunately, three weeks later he died of meningitis. So a simple injury may end disastrously.

Gentle manipulation and not more than is absolutely necessary, traction and prolonged fixation will, in the majority of these cases, relieve symptoms and, in a very fortunate number, result favorably.

Dr. G. C. Anderson (New Orleans): The first thing I want to do is to subscribe to what Dr. McIlhenny has said, particularly with reference to the excellence of the presentation by Dr. Simon. He has covered his subject thoroughly and left little to discuss.

One point to be emphasized in connection with what Dr. McIlhenny says, is in severe cases to include the chest in the plaster cast; in other words, it should be brought down sufficiently low so that the principal weight bearing is carried by the pelvic girdle; if the weight is carried by the shoulder girdle you are still pulling the head because the shoulder is supported from the base

of the skull and the skull, of course, is supported by the vertebral column, so it is a very excellent idea not to rest too much weight on your shoulder girdle, for if you are going to put your weight on the shoulder girdle you press the scalenus muscles and they will pull right down on the cervical spine.

The question of operation in many cases depends to a large extent on the results of the spinal puncture with the Quackenstedt test. If you have a roentgenogram which shows a tremendous amount of displacement, immediate paralysis coming on at the time of the accident, with no signs of improvement, we may feel safe in saying that the cord was severed and that the operation was not indicated, especially if that displacement remains. But in many cases we will find a roentgenogram that shows only a small degree of malalignment and at the same time the man has evidence of spinal paralysis at that region; that may be due to hemorrhage or edema, more particularly if the paralysis did not come on immediately at the time of injury; supposing he was injured and he had very little paralysis and it developed gradually. In that case if we did a spinal puncture and applied pressure to the jugular vein and did not get response we would feel that there was a block there that might be removed by laminectomy. As he has shown by statistics, a tremendous number of these cases are inoperable, but in the case of subarachnoid block without a great deal of displacement I believe that the patients are entitled to the chance of laminectomy and decompression.

I have one little practical point to bring out in connection with the Quackenstedt test. It should never be done in the upright position; many people have done spinal puncture that way. The patient should be in the horizontal position and a small pillow placed under his head so that the spine is as straight as possible. Now how are we going to measure the pressure if we have no manometer? Take your ordinary blood pressure machine, get a little length of rubber tubing, then take a metal adapter and stick one end into the spinal needle and the other in the cuff attachment of your blood pressure apparatus and you can get your reading and get your response to jugular pressure just as well as with the spinal manometer. And that little piece of apparatus is within the reach of everyone.

Dr. E. S. Hatch (New Orleans): I quite agree with the other men who have discussed Dr. Simon's paper, that he has covered the situation beautifully.

In regard to the cases of subarachnoid block of which Dr. Anderson spoke, I think laminectomy should be done in all cases where there is the least possibility of this procedure doing good. Of course, when complete paralysis immediately follows injury, it is not indicated.

In taking roentgenograms, always be sure to get a lateral skiagraph. I cannot conceive of anything more desirable than two views, the antero-posterior and the lateral; often nothing is revealed in the antero-posterior view, while the lateral view will show something you do not suspect at all. That is quite frequently borne out, more especially in the fracture cases.

I believe it is possible to get dislocation without fracture; in fact I have succeeded in reducing two; one case I remember distinctly, a case I saw last year, in which the roentgenograms pictures showed nothing.

Dr. C. S. Holbrook (New Orleans): The point I wish to bring out Dr. Hatch has covered, and that is the necessity of the lateral roentgenogram of the spine. I have seen several cases where fracture has been ruled out because the skiagraph had only been taken in the anterior posterior view. It is a little difficult to get the patient in the lateral position and a little hazardous, but it is something necessary, a good picture to aid in diagnosis being often the main thing.

Recently I saw a most interesting case, a man with fracture of three cervical vertebra with no neurological findings except a very mild tingling in the middle finger of right hand; he had three distinct fractures, three vertebra involved, the fourth, the fifth and the seventh cervical vertebra. This individual in an attempt at suicide dived straight into a brick wall and broke his spine in three places. A cast was applied and he made a complete recovery. He had a little blood in his spinal fluid but no black.

Another thing I wished to mention is the use of the air mattress, and to get this early before

bed sores begin. The instrument houses are now keeping air mattresses but formerly we used to have to telegraph for them and bed sores would develop four or five days before we received them.

In regards to the management of the bladder. I believe that the best way to treat the bladder is not to catheterize it, but to let it overflow; there is no danger of rupture and the patient does not develop sepsis nearly so rapidly.

Dr. E. Denegre Martin (New Orleans): In handling fractures of the cervical vertebra we must combine comfort with efficiency. I have found that the head balanced in a sling while traction is being made, is far more comfortable than resting on the mattress or a pillow and requires much less pull to effect the same results.

Dr. J. T. O'Ferrall (New Orleans): It seems to that the essayist and the discussers have laid stress on severe cases of fractures of the cervical vertebrae, but have said nothing about the symptoms. In my experience, the greater number of cases occur from slight injuries such as a rotary dislocation. It is astonishing how many of these cases are produced by simple injuries, such as children playing in bed and butting their heads together. A very interesting case of this type has been recently reported, namely a man was told by his wife to go to bed; he playfully dived into bed and the slight twisting of his head in doing so produced a rotary dislocation. These dislocations and fractures are distinctly of two types, the typical rotary dislocation usually with slight fracture or chipped fracture, and the compression fracture. The cervical vertebrae are more subject to the rotary dislocation. I am particularly interested in hearing no one mention the importance of taking a roentgenogram of the upper cervical spine with the patient's mouth wide open. It is the only satisfactory work to get a view of the axis and atlas, including the odontoid process. This latter process can be brought out beautifully if the proper tilt of the head is maintained while the picture is being made, being sure to remove plates with false teeth. Very little has been said about differential diagnosis in these cases. If a man falls from an airplane, or in the instance cited of the man who ran 30 yards butting his head into a wall, we can be sure of fracture of the vertebra or skull. Certainly, concussion and most probably fracture or dislocation of the vertebra, but in the simpler cases how are we to differentiate between an injury to the vertebra or an ordinary torticollis? In the case of children who are put to bed well and awaken with a wry neck, can we be sure that they have not been playing and a slight accident has produced a rotary dislocation? Is it a dislocation or is it a torticollis? These cases also must be differentiated from tuberculosis of the spine. It would seem that tuberculosis would be slow in onset, associated with some rise of temperature, but it is an astonishing fact that some of these cases of tuberculosis are not recognized until the patient suddenly develops a wry neck. Typical symptoms of rotary dislocation are, spasm of the latereal cervical muscles at the site where the rotary dislocation or fracture has taken place; the occiput is pulled to the affected side and the chin to the opposite side. Certainly this picture very greatly simulates an ordinary torticollis and it is necessary to differentiate between them. Nothing has been said about digital examination of the posterior pharyngeal wall, which is exceedingly important. If there is a rotary dislocation and one side of the vertebral body has projected forward, digital examination of the posterior pharyngeal wall will reveal a ridge. There are cases where reduction has been made by pressure upon this ridge in the posterior pharyngeal wall. Times does not permit a great deal which has been left unsaid in regard to these cases. Certainly diagnosis should not be made upon the roentgenogram alone, as has been suggested. The five chief points of diagnosis are:

1. The position of the head:

2. Position of the transverse processes as they are palpated in the neck.

3. The presence or absence of a ridge in the posterior pharyngeal wall.

4. The information derived from an anterior posterior X-ray through the mouth.

5. A careful lateral roentgen-ray examination of the cervical spine.

Dr. Simon (closing): I desire to thank the members who have so kindly discussed this paper and the amount of discussion is a source of gratification for having selected this subject. In closing let us again stress the necessity of fixation until roentgen-ray evidence shows that it is no longer needed.

CASE REPORTS AND CLINICAL SUGGESTIONS

ACUTE LYMPHATIC LEUKEMIA: REPORT OF CASE IN ELEVENTH MONTH MONGOLIAN IDIOT.

HYDER F. BREWSTER, M. D.,

AND

HERBERT E. CANNON, M. D.,

NEW ORLEANS

In 1857, von Friedrich first described a case of acute leukemia. In 1895, A. Fraenkel described the pathological changes of the blood in such cases and stated that acute leukemias were all lymphemias in which the increase in the white cells was almost, if not entirely, in the lymphocytes. Following this lead, many contributions to the literature on acute leukemia appeared. As late as 1904 nearly all cases were classed as acute lymphatic leukemia and, in fact, nearly all writers denied the existence of acute myelogenous leukemia. However, more recently, careful studies without, but especially with, special differential staining methods, have shown that not only is acute myelogenous leukemia far more frequent than was formerly thought, but that actually acute lymphatic leukemia is the rarer disease.

Several factors have entered into the gradual elucidation of the problem of acute leukemias and their proper differentiation. Perhaps the greatest single factor has been the application of the oxydase staining method.

REPORT OF CASE

Our search of the literature failed to reveal the report of any other case of acute lymphatic leukemia in a Mongolian idiot. This patient, a predominantly white colored male, eleven months of age, was admitted to Charity Hospital, New Orleans, December 3, 1928, with the complaint of fever, weakness, and restlessness. The baby was the sixth full term child and appeared normal to the parents until about the sixth or eighth month when inability to support its head or to sit alone aroused suspicions of undue weakness. The entire life history was uneventful except for a few mild colds, weakness, and the terminal illness. The child rarely cried, unless from hunger or real pain. The state of weakness persisted; sitting alone or crawling were never observed. Teeth failed to appear at the proper time. Five or six days previous to admission, restlessness and fever developed; these symptoms increased as greater weakness, anorexia, and air hunger made their appearance and progressed steadily.

The five older children in the family were all well, intelligent, and making normal progress. The parents were well and rather surprisingly intelligent; the father was forty-six and the mother thirty-seven years of age.

Physically, the patient was well nourished, weighing twenty-five pounds, and the body proportions were all practically normal. Restlessness was apparent, the head being thrown back at times and attempts made at deep breathing. The Mongolian facies were, however, readily apparent. The eyes were far apart, separated by a broad, flat nose, and the typical downward and inward slant of the relatively narrow palpebral fissures obtained. The mouth was open most of the time, and a thick heavy tongue was in evidence. The antero-posterior diameter of the head was decreased. The limbs were of normal length and proportions, but the muscles and ligaments about the joints were extremely lax and flabby; great over-play and contortions could be easily produced about any of the joints. The fingers were of normal length but rather thick at the bases; the distal phalanges of the little fingers presented slight inward deflections.

More minute examination revealed a normal scalp with straight, black hair, coming rather far down on the forehead. The anterior fontannel was 2½ by 3 cms. The conjunctivae were extremely anemic. There were no teeth, but the mucosa of the gums, as well as that of the rest of the oral cavity, presented small, shallow, irregular ulcers. The skin was almost as white as that of a white child and presented anemic and a few widely scattered purpuric spots. Small glands were palpated in the neck, as well as in the axillae. The area of cardiac dullness was increased. Systolic murmurs of blowing quality were heard at all valvular areas; heart sounds were muffled. Scattered moist rales were heard throughout most of both lungs, but no dullness could be detected. A small umbilical hernia was present. The spleen was readily palpated as a moderately firm, smooth mass 5 by 8 inches, rather freely movable and almost entirely below the costal border; it extended medially to the umbilicus and downward half the distance to the symphysis pubis. The liver was smooth, firm, and extended to the umbilicus.

The blood Wassermann was negative. Urinalysis revealed a trace of albumin and a mod-

erate number of hyaline and fine granular casts. A complete blood picture presented 1,500,000 red blood cells, 108,000 white blood cells, 30 per cent hemoglobin by the Talquist scale. The red blood cells presented anisocytosis, poikilocytosis, and polychromatophilia. Two nucleated red blood cells of normoblast type were encountered in making a differential leukocyte count; the latter revealed nine small mononuclear lymphocytes, five normal polymorphonuclear leukocytes, and eighty-six large mononuclear lymphocytic cells, averaging 14 in diameter, which presented no oxydase granules by the oxydase stain method applied to numerous smears.

PROGRESS OF CASE.

The patient lived twenty-eight hours after admission. The initial temperature of 100 2-3°F. rose to 102°F. Purpuric spots increased in number. The rather moderate air hunger increased to extreme restlessness and gasping for more air. A yellowish-grey color was noted in the skin during impending death. Medical science offers nothing for these patients.

NECROPSY

No serious cavity or its lining presented any inflammatory condition; only the pericardial cavity contained fluid, 110 c. c. and of light straw color.

The mesenteric lymph modes, as well as mediastinal and perihilar nodes were slightly enlarged without any attempt at matting together. They were firm and on section presented a greyish-yellow color. The heart was somewhat enlarged and of pale red color and firm consistency. The kidneys were enlarged, flabby, and pale. Microscopy revealed albuminous or granular degeneration of the tubular epithelium and congestion of the intraglomerular and interstitial capillaries, many of which presented massive accumulations of large lymphocytes. The lungs were voluminous and crepitant throughout. Here, too, the rich vascular plexuses presented marked accumulations of large lymphocytes. The liver was considerably enlarged, congested, and presented yellowish-grey foci in its deeper portions. Microscopic examination showed granular and fatty degeneration of the liver cells, foci of lymphcytic infiltration and large intravascular accumulations of large lymphocytes. The spleen was rather flabby, 5 by 8 inches, and presented microscopically distinct Malpighian bodies, whose cells contrasted markedly with the large lymphocytes filling the splenic pulp and vascular spaces. (All parenchymatous organs were markedly pale.) Organs not mentioned presented nothing of importance.

ARACHNIDISM—SPIDER POISONING.

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SHREVEPORT, LA.

Arachnidism, or spider bite poisoning, has become recognized as a distinct clinical entity by the medical profession; however, somewhat in opposition to the teachings of entomologists and arachnologists. Lay people in all parts of the world have, apparently with good reason, for years considered the spider as poisonous. To them all spiders are considered poisonous and many of the cases so considered by them, for instance those resulting in sloughing, may be the result of secondary infection. Other cases may be a form of sensitization as a case reported by Schmaus[3] in 1929. Toxicity for the much dreaded tarantula has not been definitely proved. The Lactrodectus mactans, or "black widow spider," is the only spider in the United States, so far as is known, that produces a definite train of symptoms.

The clinical entity produced by the black widow spider is apparently quite common in this section of the country. Without making a special survey, the writer has heard of eleven cases in addition to the one that he is reporting that occurred in the vicinity of Shreveport during the last four years. All of these reports came from reliable physicians.

Bogen[1] [2], in 1926, reviewed 150 cases that had been reported in the literature and presented 15 new cases that had been treated in Los Angeles General Hospital. He states that the condition is more prevalent in the Southern half of the United States, and most of the cases reported have been from California. None have been reported from Louisiana.

LACTRODECTUS MACTANS.

The Lactrodectus mactans, or "black widow spider," so-called from its custom of eating its mate, is a large black spider, brilliantly marked with red or yellow, or both. The female is much larger than the male and, characteristic of all species, is the one that is poisonous. Its web is coarse and is located in a dimly lighted place such as the attic, basement, under the house, outdoor privy, dark croners of barns and other outdoor buildings, in brush and stump holes.

SYMPTOMATOLOGY.

Bogen[1] [2] has described the symptoms in detail in order of frequency and has produced most of the symptoms experimentally in the white rat.

The condition is usually seen in summer or autumn. It is much more frequent in males than females. Most of the victims are bitten on the penis or adjacent parts while sitting in an outdoor privy. At first there is only a stinging sensation, which may or may not be accompanied by a tiny red spot at the point of injury. In from fifteen minutes to two hours the patient begins to experience excruciating pain, which continues from two to six hours. The pain spreads by continuity. For instance, a patient that is bitten on the penis will first experience pain in the groins and then it will rapidly spread to other parts, but as a rule it wil localize in the abdomen or chest, or, if a patient is bitten on the arm, he will first experience pain in the chest. The pain is intense and is described in various ways by patients. It is usually accompained by muscle spasms, writhing, rolling, doubling up, or tossing about. If pain localizes in the abdomen, as it usually does, the abdomen presents a board-like rigidity which is not accompanied by localized tenderness. Other symptoms according to Bogen, in the order of frequency, are "profuse cold perspiration, restlessness and anxiety, difficult breathing, nausea and anorexia, vomiting, constipation, cyanosis, delerium, prostration or shock, insomnia, disturbances of speech, acute urinary retention, paralyses, convulsions, localized swelling of the bitten part or other parts of the body, a macular skin eruption, chills, vertigo and jaundice." Tremors, muscle twitching and paraesthesias are present in some cases. Slow pulse and rapid pulse occur with about the same frequency. Weakness, tingling of the extremities and general body aches are frequently present in a prolonged convalescence. Temperature and respirations are usualy elevated. Practically all cases show a leukocytosis with an increase in the polymorphonuclear leukocytes. The total count usually varies from 10,000 to 14,000. Some deaths have been reported.

TREATMENT.

According to Bogen, more than seventy-five remedies have been administered for this condition. Morphine, whiskey, ammonia water, atropine, magnesium sulphate, hot baths and fomentations, bleeding, opium, strychnine, camphor and potassium permanganate have been the principal theraupeutic agents. To the list that Bogen mentions hemostatic serum might be added as it was used on one of the cases occurring near Shreveport.

CASE REPORT.

F. E., white male, aged 39 years, locksmith by profession. About 7 o'clock P. M. on August 18, 199, while at stool in an outdoor privy, was bitten on the glans penis by a large black spider. For about 15 minutes he experienced no ill effects other than a slight stinging sensation. Then he was seized with a severe pain in each groin. The writer was called, but before he arrived at the

home the patient's condition had become so serious that members of the family decided to move him to the Sanitarium. About forty-five minutes after being bitten, patient was admitted to the Highland Sanitarium. The patient was cyanotic, writhing with pain and bathed in a profuse, cold perspiration. The pain was localized over the precordium and radiated to the left shoulder and arm. The pulse had a good volume, was regular, and had a rate of sixty per minute. Respirations twenty-eight per minute. Blood pressure 170-190. Morphine, grains ⅜, was administered by hypodermic, but before this had had time to have any appreciable effect, nitroglycerin, grains 1/100, was administered under the tongue. This gave considerable relief immediately. The nitroglycerin was repeated in fifteen minutes. About two hours after admission to the Sanitarium he had a temperature of 99.4° F. About four hours after admission he had a temperature of 101° F., and complained of weakness and general body aches. He was given morphine, grains ¼, by hypodermic and rested fairly comfortable the remainder of the night. The following morning at 8 o'clock his temperature was 99.2° F. Red cell count 4,900,000, hemoglobin 80%, white cell count 13,750 polymorphonuclear leukkocytes 80%; small lymphocytes 20%. Urine negative. Blood pressure 130/70. Pulse rate seventy-six. At four o'clock p. m. the temperature was normal and patient was comfortable except for generalized body weakness. He was discharged from the Sanitarium. At no time after his admission was there any local evidence of the spider bite.

SUMMARY.

1. Attention is called to the more important symptoms of a condition described accurately by Bogen in 1926.

2. This condition is apparently not uncommon in North Louisiana.

3. A case is reported presenting most of the typical symptoms.

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STUDY OF THE TREND OF NEGRO INFANT MORTALITY.—A report has recently been issued by the U. S. Public Health Service on a study based on negro and white infant mortality rates in the urban and rural areas of a group of Northern and Southern States, in urban and rural Maryland, and in four cities, viz., Richmond, Va., Baltimore, Md., Charleston, S. C., and New Orleans, La.

In every area studied, negro infant mortality rates were higher than the corresponding rates for white infants. This difference was not marked in the urban areas of the South. Negro infant mortality rates in the rural South, however, were nearer to those of the corresponding white mortality rates than in any other area. The lowest negro rates were found in the rural South and the highest in the Southern cities. On the whole, infant mortality among the negroes shows trends similar to those shown by infant death rates among the white populations of the same communities. In two cities, Baltimore and Richmond, negro infant mortality has declined more rapidly than that of the white population.

The study also discusses negro and white infant mortality from various causes in several of the Southern States of the birth-registration area.

Negro infant death rates are higher than the rate for white infants for every cause except four contagious diseases. The greatest excess of negro over white infant deaths was due to unknown and ill-defined diseases. Deaths from respiratory diseases, all forms of tuberculosis, and gastro-intestinal diseases were considerably more frequent among negro than among white infants. Mortality among infants of both races is extremely high during the first month of life; white rates fall rapidly during successive months; negro rates also decrease, but the decline is not so sharp. The ratio of negro to white infant deaths is highest between the fifth and the tenth month. The excessively high rates which occur in both races during the first month are due for the most part to premature birth and congenital debility. Negro and white infant mortality from these causes are very much alike. The principal cause of the excess of negro over white infant deaths from the second to the tenth month is pneumonia. Deaths from diarrhea and enteritis are considerably more numerous among the negroes than among the whites.—United States Public Health Service, Health Bulletin, May 14, 1930.

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BLOOD REGENERATION IN SEVERE ANEMIA.

The enthusiastic reception of liver extract in the treatment of anemia has been followed by a natural reaction, namely, to expect liver extract, as prepared for patients with pernicious anemia, to give satisfactory results in the treatment of all types of anemia. This has not been the case, needless to state, because the maturation factor which is present in pernicious anemia liver fraction is applicable to a specific disease of entirely different pathogenesis than the average type of anemia. Whipple and his co-workers,* to whom is indebted the primary studies on the influence of liver in anemia, have not been satisfied that liver is incapable of bringing about a prompt regeneration of the blood in other types of anemia. They have extended their investigations in experimental anemia and the treatment of these hemoglobin anemias with liver, and now report upon a liver fraction which contains 65 to 75 per cent the potency of whole liver for hemoglobin production, a fraction which represents 3 per cent of the weight of the whole liver. In this substance there are probably a number of active principles, many of which are inorganic in character and are of importance. Adding iron to this fraction of liver will increase total output of hemoglobin, and the same statement holds true through the addition of the whole liver to the material. The authors state that the fraction is palpable and may be taken without gastric disturbances. They believe that liver and kidney are of importance in supplying in the most available form certain factors necessary for the reconstruction of new hemoglobin and red cells in anemia.

THE PRESIDENT OF THE LOUISIANA STATE MEDICAL SOCIETY.

Dr. Herman Bertrand Gessner was elected head of the Louisiana State Medical Society at its recent meeting in Shreveport. The election of Dr. Gessner is a tribute not only to him as a physician but is also a recognition and appreciation of his splendid qualities as a man, a friend of the medical profession and a beloved doctor.

*Blood regeneration in severe anemia, XXI. A liver fraction potent in anemia due to hemorrhage, G. H. Whipple, F. S. Robscheit-Robbins, and G. B. Walden. Am. J. Med. Sci., 179, 628. 1930.

Dr. Gessner was born in New Orleans in 1872, and received there his complete education. He secured an A. M. from Tulane University in 1891 and his degree of doctor of medicine four years later from the same university. One year after graduation he was elected recording secretary of the Orleans Parish Medical Society, and since then has held numerous offices in the organization. His ability and his interest in the activities of organized medicine culminated when as a young man only 32 years old he was elected president of the Orleans Parish Medical Society. Dr. Gessner's interests in the Louisiana State Medical Society have been many and varied. He has appeared frequently on the program of the scientific sessions; he has acted as Councillor from his home district, and he has been a member of numerous committees

The new president of the Society has been active as a teacher of surgery in Tulane University since the time of his connection in 1904. At the present time he has advanced by successive grades to the present position of Professor of Clinical Surgery in Tulane Medical School. He is a Fellow of the American College of Surgeons, the American Medical Association and numerous other smaller medical and surgical organizations.

The State Medical Society and Dr. Gessner are both to be congratulated upon the selection of the new president of the organization. Dr. Gessner is to be congratulated because the honor of leading his State Society has been conferred upon him; the State Society because in their new leader they have a man who has been active always in the advancement of medicine from the scientific, economic, pedagogic, or ethical point of view, and who always has been eager to help and to aid organized medicine in every way within his ability and power.

THE NEW PRESIDENTS OF THE MISSISSIPPI STATE MEDICAL SOCIETY.

The constitution of the Mississippi State Medical Association, at the recent meeting in Vicksburg, was so changed that the officers of the Association include a president and a president-elect. It is for this reason that the Journal announces the election as President of Dr. E. F. Howard, and the selection as President-Elect of Dr. J. C. Culley. Thus at the recent meeting of the House of Delegates the presiding officer for next year and the following year were chosen, incidentally by the unanimous vote of the assembly.

The President of the Mississippi State Medical Association, Dr. Ewing Fox Howard, is one of the best known physicians in the State of Mississippi. Dr. Howard was born in 1874 and graduated from Tulane Medical School twenty-three years later. For the last few years he had devoted himself to the specialty of otology and laryngology, in which he has achieved high reputation throughout the South. Much of the success of the last meeting of the Mississippi State Medical Association is attributed to the efforts of the new president.

Dr. John Clifton Culley, the President-Elect who will succeed Dr. Howard in the presidential chair, was born in 1886, and will be one of the youngest men to hold the presidential chair in the history of the Mississippi State Medical Association. Dr. Culley graduated from Vanderbilt Univer-

sity Medical School in 1909, and has devoted the greater part of his medical life to the practice of surgery. The State Association should receive felicitations upon their happy selection of the two new presidential officers.

NEW OFFICERS OF THE LOUISIANA STATE MEDICAL SOCIETY.

At the 1930 meeting of the House of Delegates of the Louisiana State Medical Society, Dr. S. C. Barrow of Shreveport was unanimously elected to the position of President-Elect of the organization. Dr. Barrow well deserves the honor. For many years he has given to the best of his ability, his time and his interests in furthering the purposes of the organization. He has done this largely through the position as Councilor of the Fourth Congressional District, a position that he has held for a number of years. In addition to his interests in the State Society the President-Elect is recognized as one of the outstanding roentgenologists in the State of Louisiana.

The First Vice-President is Dr. S. J. Couvillon of Moreauville. Dr. Couvillon is well known throughout the State. He has been a Councilor of the Eighth Congressional District for a number of years and has served as Chairman of the Council. He is now Secretary of the Avoyelles Parish Medical Society and has served as an officer of that Society on several occasions.

The Second Vice-President elected at the Shreveport Meeting was Dr. C. A. Weiss of Baton Rouge, who has been Councilor of the Sixth Congressional District for a number of years. Dr. Wiess has previously been one of the Vice-Presidents.

Dr. A. G. McHenry of Monroe was elected Third Vice-President. He has been for a number of years a member of the House of Delegates.

Dr. J. J. Ayo of Raceland has proved such an extremely efficient and able Chairman of the House of Delegates that his election was a foregone conclusion. A man of forcible personality and an excellent parliamentarian, it would be very hard indeed to find a man able so successfully to carry on the business of the House as has Dr. Ayo during the several years that he has held the position.

The genial and able Dr. P. T. Talbot, we are happy to announce, was re-elected as Secretary-Treasurer.

The Councilors that were elected include Dr. H. E. Bernadas, re-elected from the First District; Dr. D. N. Silverman, Councilor from the Second District; Dr. J. B. Benton of Monroe, Councilor from the Fourth District; Dr. C. P. Gray of Monroe Councilor from the Fifth District. All of these men have been active and most valuable workers in organized medicine.

The members of the following committees were renominated and elected: Committee on Public Policy and Legislation, Committee on Publication, Committee on Medical Defense, Committee on Hospitals, Committee on Health and Public Instruction and Committee on Budget and Finance.

Dr. John A. Lanford was elected on the Journal Committee.

Dr. W. H. Seeman was nominated as Delegate to the American Medical Association with Dr. Arthur A. Herold as Alternate.

The next place of meeting will be in New Orleans.

HOSPITAL STAFF TRANSACTIONS

CHARITY HOSPITAL SURGICAL STAFF.

The regular monthly meeting of the staff was held on Wednesday night, April 16, 1930, with Dr. A. C. King presiding as chairman.

The meeting was opened by Dr. Alton Ochsner, who presented an interesting paper on when to drain and when not to drain the abdomen. Dr. Ochsner reviewed the literature and gave the present day thoughts on this very important subject. At the conclusion of his talk he stated that the dictum of the past, which was "Drain when in doubt," is now changed to "Do not drain when in doubt." Those who followed Dr. Oschner in the discussion of his paper, more or less concurred in this last opinion. The paper brought out an interesting discussion, in which Drs. Urban Maes, Joseph Danna, C. J. Miller and Denegre Martin took part.

The next presentation was a brief talk on mastoiditis in individuals under three years of age, by Dr. Amedee Granger. Dr. Granger, who has been a pioneer in this particular field, showed a number of interesting slides. included among which were normal cases showing the transformation of the simple antrum cavity into a more complicated mastoid containing numerous cells. This went on, he explained, until the full development was reached, around the third year. In mastoid infections of these cases bone destruction takes place, and a number of such cases have had to have radical mastoid operations in this early period of life. What the results have been, so far as the radical operation of these infants is concerned, has not been tabulated. However, it is felt at this time that this is the procedure of choice. Several in attendance, including Drs. Cassegrain and Monte Meyer, praised Dr. Granger's excellent work.

The next order of business was the presentation of two interesting deaths. The first case was that of an individual fifteen months of age, who had been admitted to the hospital with laryngeal diphtheria, and on whom it became necessary to perform a tracheotomy. This child developed measles followed by otitis media, necessitating several punctures and drainage, and later developed bilateral mastoiditis. Under local anesthesia both mastoids were opened and curetted as is usually done in operations of this type. The child died five days later. Autopsy also showed that the child had broncho-pneumonia. The discussion which followed was lengthy and interesting.

The next case was that of a male adult, on whom a clinical and radiological diagnosis of stomach ulcer was made. Exploration resulted in overlooking of ulcer which was found on the posterior surface of the stomach at autopsy. The patient died seven days after being operated on.

FRANK L. LORIA, M. D.

FRENCH HOSPITAL.

The regular meeting of the French Hospital Staff was held on Friday, March 28, 1930, Dr. M. J. Lyons presiding. The minutes of the last meeting were read and approved. The report representing the patients discharged during the month of February was given by Dr. E. L. Zander. Those present at the meeting were: Drs. R. L. Gordon, M. J. Lyons, E. L. Zander, H. B. Alsobrook, L. L. Cazenavette, R. F. Sharp, L. F. Rolling, J. F. Sicomo, Chas. Cox, E. M. Warner, D. N. Silvermann, P. Graffagnino, H. W. Harris, H. F. Ader, C. J. Brown, D. V. Longo, J. P. Palermo, S. C. Lyons, W. R. Strange, F. H. Hardenstein.

Dr. W. H. Harris moved that the regular business be dispensed with so as to allow Dr. D. N. Silvermann to present a case of Glandular Disturbance. The motion was seconded and passed. After Dr. D. N. Silvermann had briefly presented this case he was thanked by Dr. M. J. Lyons in behalf of the Staff for the interesting talk.

The deaths occurring during the preceding month were brought up for general discussion and were as follows: Lobar pneumonia, multiple burns, luetic meningitis, incomplete abortion. These cases were discussed by Drs. H. B. Alsbrook, M. J. Lyons, P. Graffagnino.

The scientific program for the month was Vaccine Treatment of Carbuncles, which was presented by Dr. S. C. Lyons. Dr. Lyons brought out remarkable results that he obtained from the use of vaccine in the treatment of carbuncles; the effectiveness and simplicity of the treatment.

The discussion was opened by Dr. W. H. Harris, who spoke on the essential logic of vaccine therapy. Dr. P. Graffagnino said that with such startling results as had been revealed by Dr. S. C. Lyons

the treatment of carbuncles would be revolutionized. Others taking part in the general discussion that followed were: Drs. H. B. Alsobrook and L. J. Menville.

Dr. P. Graffagnino asked the Staff for their support in raising money in behalf of the Hospital. He outlined briefly the need of a moderately priced hospital and especially the need of a moderately priced maternity service in the downtown section of New Orleans. At the close of this appeal Dr. P. Graffagnino asked for suggestions from the Staff as to how this money could be raised.

Dr. L. J. Menville moved that the Civic Organizations of New Orleans be invited to send representatives to a luncheon where their aid would be enlisted in putting over a drive for the benefit of the French Hospital. This motion was seconded and passed.

There being no further business the meeting adojurned.

EDW. L. ZANDER, M. D.

VICKSBURG SANITARIUM AND CRAWFORD STREET HOSPITAL STAFF MEETING.

May 10, 1930.

Abstract: Acute traumatic osteomyelitis of the cranium with extradural abscess. Dr. J. A. K. Birchett, Jr.

Patient: Colored male, aged 17 years; school boy; admitted to hospital April 24, 1930.

Present Complaint: Has lump on head (front) with severe frontal headache and slight dizziness.

History of Present Complaint: Two weeks ago was in an automobile wreck; car turned over but does not remember any special hurt except bumping head against the front seat of the car; no great amount of soreness. In three or four days swelling began to get larger and more painful. Consulted family physician who advised cold packs. Mass has grown to the size of a small walnut and headache is severe, with fever and general aching.

Past History: In April, 1928, began having cough and fever which lasted for five weeks. Physician diagnosed the condition as whooping cough. Had recurrence of cough in April, 1929, with loss of weight, fever, and swelling of abdomen which proved to be tuberculous peritonitis. Treated with pneumo-peritoneum with recovery. In September, 1929, began to complain of cough, malaise, and pain in the left chest, which proved to be pleurisy with effusion. Paracentesis was performed and the lung condition controlled by artificial pneumothorax. Lung lesion apparently entirely cleared and patient gained weight and strength.

Patient has abdominal scar at the site of pneumo-peritoneum and explanatory incision which occasionally breaks down and discharges purulent exudate. Tissue from this sinus has proved tuberculous and has nearly healed under roentgen-ray therapy. Patient was about to be discharged as cured of tuberculous infection of peritoneum, pleura and abdominal wall when present complaint brought him back to the clinic.

Physical Examination: Well developed and nourished; small tumor on the left perietal region, hard and tender to touch; some swelling in the left intra-orbital region, partially closing left eye. Temperature 98° F. Tonsils present and negative; teeth good; heart negative; lungs negative. Abdomen shows right rectus scar with evidence of recently healed sinus; otherwise negative. Genito-urinary system negative.

Roentgen-ray examination of the skull shows a small rarefied area in the left parietal region, corresponding to the site of the tumor. Wassermann and Kahn tests negative.

Course: The diagnosis of acute traumatic osteomyelitis of the cranium was made. The mass was incised; the skin of the scalp and the fascia and the frontal muscles were carefully separated until a sub-periosteal fluctuating mass was palpated. This was incised with escape of thick purulent material. The bone was then exposed through an opening large enough to admit the end of a large hemostat. The aperture was further enlarged with the curet to the size of a nickel. Possibly two ounces of creamy pus escaped, exposing the pulsating dura which with relief of pressure was seen pushed up against the opening in the cranium. All dead bone was ronguered from the edge of the opening and the wound packed with iodoform gauze. The scrapings from the bone were examined microscopically for evidence of tuberculosis but it was not found.

The patient has made an uneventful recovery, headache being instantly relieved, the dizziness dis-

appearing in twenty-four hours, and the edema about the face subsiding in forty-eight hours. Packing was removed in seventy-two hours and healthy granulations were found. Patient was sent home and has returned for dressings. When last seen on May 5 the wound had nearly healed and patient was feeling well.

Abstract: Ruptured tubal pregnancy with complicating Meckel's diverticulitis. Dr. G. M. Street.

Patient: White, female, aged 36 years; admitted to hospital April 15, 1930.

Present Illness: Began about ten or twelve days ago with pain in the right hip. Patient took purgative and the next day after taking some more purgative pills, began having severe pain in the lower abdomen, associated with extreme weakness and pallor. States she was so pale and sick that her relatives thought she was dying. Relieved by hypodermic of morphine. The next morning was very sore and weak and had nausea and vomiting; still suffering with pain and another dose of morphine was necessary. About the second or third day later, noticed a bluish discoloration, a bruised appearance around the umbilicus, which has gradually faded. Soreness and pain in the lower abdomen has continued and patient has been in bed since onset. Had not missed any menstrual periods but a bloody flow from the uterus began about the same time as the attack and has continued since. Bowels constipated; has bladder frequency and tenesmus; has had slight fever but not rigors; some mild sweats.

Past History: Youngest child is thirteen years of age; no pregnancies since. No history of similar previous attacks; never suffers unduly at menstrual periods. States she has not been confined to bed on account of illness except for confinement for over sixteen years. Past history otherwise not remarkable.

Family history: Uninteresting.

Physical Examination: Temperature 100° F., pulse 104, respiration 18. General examination shows nothing remarkable aside from the findings in the lower abdomen and pelvis. The upper abdomen is soft and not tender. Whole lower half of abdomen moderately rigid and tender, especially in the lower right quadrant. Bimanual palpation shows fixed uterus, extremely tender; all pelvic organs so tender that nothing could be accurately mapped out. There was an indefinite mass on both sides, seemingly much larger on the right.

Blood: Hemoglobin, 62 per cent; erythrocytes, 3,400,000; leukocytes, 8,500; differential leukocyte count: small lymphocytes, 13 per cent; large mononuclears, 7 per cent; polymorphonuclear neutrophils, 80 per cent; no malaria found; Wassermann and Kahn tests negative. Urine: trace of albumin; no pus; no blood; no casts; no sugar.

Course: Intra-abdominal hemorrhage from probable rupture of tubal pregnancy was suspected. Patient was put to bed with ice cap to lower abdomen and mild sedatives were given. Steady improvement until the night of April 20 (five days after admission) when she had another sudden shap attack of pain in the right lower quadrant with signs of another intro-abdominal hemorrhage.

Immediate operation was performed. Low midline incision; lower abdomen and pelvis filled with serum and old blood clots; some fresh bright red blood also present. All of pelvic structures densely matted together with recent fibrinous adhesions and clotted blood. Right tube delivered and was about 1½ inches in diameter, greatly swollen and dark red and edematous. Left tube and ovary fairly normal. Uterus small and normal. Coils of small intestine adherent to all the pelvic structures. While separating and lifting these coils of the small intestines from the pelvis, a limb of the small gut was encountered that had no mesentery. This was followed down and with difficulty separated and delivered from the cul-de-sac. It proved to be a Meckel's diverticulum, over ten inches long and originating from the ileum more than twenty-four inches above the ileo-cecal valve. The distal four inches was very edematous and inflamed and appeared to be too acute to risk leaving in the abdomen in spite of the fact that the patient's condition was not good and no more surgery than was actually needed was indicated. The diverticulum was resected, appendix removed, sub-total hysterectomy with removal of right ovary and both tubes was performed.

Microscopic examination showed in blood clot from right tube, a few areas suggesting decidual tissues, much degenerated. Diverticulum showed acute purulent inflammation, most marked at surface.

The patient made an uneventful recovery and was discharged on May 7 (16th post-operative day).

The unusual feature in this case is the finding of an acutely inflamed, unusually large, Meckel's diverticulum adherent to pelvic structures and a ruptured tubal pregnancy. The diverticulum had its origin from the ileum much farther away from the ileo-cecal valve than usual.

TRANSACTIONS OF ORLEANS PARISH MEDICAL SOCIETY

CALENDAR

June 2—Eye, Ear, Nose and Throat Hospital Staff, 8 P. M.

June 6—Pathological Conference, Hotel Dieu, 10-11 A. M.

June 9—*Orleans Parish Medical Society*, 8 P. M.

June 10—Baptist Hospital Staff, 8 P. M.

June 11—Touro Infirmary Staff, 8 P. M.

June 13—Pathological Conference, Hotel Dieu, 10-11 A. M.

June 13—French Hospital Staff, 8 P. M.

June 16—Hotel Dieu Staff, 8 P. M.

June 17—Charity Hospital Medical Section, 8 P. M.

June 18—Charity Hospital Surgical Section, 8 P. M.

June 19—I. C. R. R. Hospital Staff, 12 Noon.

June 19—Eye, Ear, Nose and Throat Club, 8 P. M.

June 20—Pathological Conference, Hotel Dieu, 10-11 A. M.

June 23—*Orleans Parish Medical Society*, 8 P. M.

June 27—Pathological Conference, Hotel Dieu, 10-11 A. M.

During the month of May the Society held two scientific meetings and the programs were as follows:

Monday, May 12:

Low Cervical Cesarean Section, with a Review of Cases. By Dr. Hilliard E. Miller. Discussed by Drs. W. E. Levy and E. L. King.

A Study of the Incidence of Rickets in a Group of Children in New Orleans. By Dr. G. Richard Williamson and Rena Crawford. Discussed by Drs. H. E. Miller and Ludo von Meysenbug.

Sterility. By Dr. Joseph Cohen. Discussed by Drs. H. W. Kostmayer and S. Sternberg.

Monday, May 26:

Optic Atrophy. By Dr. M. Earle Brown. Discussed by Dr. Henry Daspit.

Cancer of the Larynx: a. Moving Picture Demonstration of Laryngectomy. b. Presentation of a patient with artificial Larynx. By Dr. R. Clyde Lynch.

The Control of Allergic Cases. By Dr. N. F. Thiberge. Discussed by Dr. E. L. Leckert.

Neuralgia, Tic-douloureux, its Treatment by Injection of Quinine urea. By Dr. W. A. Lurie. Discussed by Dr. Z. T. Young.

The membership is advised that the insertion of names in the Blue Book as published by the New Orleans States is unethical.

At the meeting held May 12 a vote was taken to invite the American Medical Association to hold their 1931 convention in New Orleans. This invitation will be submitted at the Detroit Meeting in June.

The History of the Orleans Parish Medical Society is out and is being favorably received by the membership.

A golf tournament for the members of the Society was held May 28 at the Metairie Golf Club. Following this tournament a dinner was held at 7 p. m.

Quite a few members of the Society cooperated in Health Round-Ups at the various schools in the City. These Round-Ups called for examination of children of pre-school age.

The third quarterly installment on the group insurance will be due June 5 and amounts to $11.25. Kindly send in your check at once. The thirty-day grace period expires July 5. Be sure to send in your check before this date.

TREASURER'S REPORT

Actual Book Balance 3/31/30	$3,710.77
Receipts	1,844.60
	$5,555.37
Expenditures	$4,073.44
Actual Book Balance 4/30/30	$1,481.93

AMERICAN MEDICAL ASSOCIATION, MEETING—June 23-27, 1930.

Dr. H. Theodore Simon, Secretary
Orleans Parish Medical Society.

Dear Doctor:

To those physicians who attend the Convention of the American Medical and Physiotherapy Associations in Detroit on June 23rd to 27th, the Louisville & Nashville Railroad is in position to offer the superior service of its de Luxe train, "The Pan American," which leaves New Orleans daily at 8:30 P. M. and reaches Cincinnati at 9:30 P. M. (E.S.T.) the following evening, where a direct connection is offered for Detroit, leaving Cincinnati at 11:15 P. M. (E.S.T.) and arriving Detroit at 7:30 the next morning. A similar service is also offered for return travel, leaving Detroit at 11:20 P. M. (E.S.T.) and arriving Cincinnati at 7:20

the following morning, where a direct connection is offered with the crack "Pan American," leaving Cincinnati at 10:15 A. M. (E.S.T.) and arriving New Orleans at 9:05 next morning.

Reduced fares will be authorized on the Certificate plan, under which plan the physicians will purchase regular one-way full far tickets from New Orleans to Detroit at fare of $39.66 and secure a Certificate Receipt from agent for same at time of purchase. If 150 or more of these Certificates are presented to the Secretary of the Convention, in Detroit, he and the special agent for the railroad there will sign same, thereby entitling the holders thereof to return ticket from Detroit to New Orleans at half fare, or $19.83. This reduction is authorized for passage from New Orleans on any date June 19th to 25th, inclusive, and is available for return passage from Detroit on any date up to and including July 1st.

The Pullman rates from New Orleans to Detroit are: $12.00 lower: $9.60 upper and $42.00 drawing room.

Yours very truly,

E. H. STOLL,
City Passenger Agent.

LIBRARIAN'S REPORT

During April, 1930, 38 books have been added to the Library. Of these 19 were received as gift, 15 from the New Orleans Medical and Surgical Journal, 3 by purchase and 1 by binding. New titles of recent date are listed below.

The illness of Miss Billon has necessitated an immediate vacation for her. This enforced absence has made it imperative to engage help by the day as needed, during this busy season.

New Books:

Graham—Surgical Diagnosis. 2v. 1930.

Beckman—Treatment in General Practice. 1930.

Clough—Diseases of the Blood. 1929.

Hull—Diseases Transmitted from Animals to Man. 1929.

Carey—Bacteriology for Nurses. 1930.

Price—Textbook of the Practice of Medicine. 1930.

Stuart-Low—Care of the Nose, Throat and Ear. 1929.

Kopetzky—Otologic Surgery. 1929.

Woollacott — Nursing of Infectious Disease. 1930.

Potts—Getting Well and Staying Well. 1930.

Wilcox — Materia Medica and Therapeutics. 1929.

Park—Pathogenic Microorganisms. 1929.

Huhner—Disorders of the Sexual Function. 1929.

U. S. Public Health Service—Public Health Laws and Regulations passed during 1927. 1930.

Harvard University—Cancer Commission Report v. 10-12, 14-15, 17, 1922-24, 1926-27, 1929.

American Otologic Society—Transactions. 1929.

American Association of Medical Milk Commissioners. Proceedings. 1929.

Henry Phipps Institute Report. 1929.

Oxford Monographs on Diagnosis and Treatment. v. 7-9. 1930.

H. THEODORE SIMON, M. D.,
Secretary.

ANNUAL REPORT OF THE WOMAN'S AUXILIARY TO THE ORLEANS PARISH MEDICAL SOCIETY.

In speaking to you this year, I have usually done so looking straight into your eyes and down into your hearts, but as this, my annual report, is supposed to be more formal, I have reduced it to writing.

The organization of the Woman's Auxiliary to the Orleans Parish Medical Society was by invitation of the Society, the only way by which we could come into being. This fact gave assurance that the Society felt that there was a function for us to perform, that they needed us and wanted us. Obedient to their request, the first president of the State Auxiliary, Mrs. Oscar Dowling, called for an organization meeting in the Hutchinson Memorial on June 27, 1929. At a subsequent meeting, July 9, 1929, organization was effected, officers elected and constitution and by-laws adopted. Since then, the articles and the constitution and by-laws have been voted on ad seriatum and approved by the general body. During the period of the first year, the Auxiliary

has held seven meetings, the first in the Orleans Club House, the last there also, and five in between, in the homes of members of the Woman's Auxiliary.

Our work thus far has been by way of building up a closer acquaintance among the wives of the doctors belonging to the Orleans Parish Medical Society, cementing the members of the Auxiliary in the bonds of fellowship and good will. This has been easily done, for a decided "esprit de corps" has been noticeable from the start. Our year's association together has been like a pleasant walk along a happy valley, where the new flowers of friendship, the rippling waters of spirited intercourse, and the warm sunshine of congeniality have given us all fresh and delightful experiences. In the coming year, I expect we shall step out into the broad highway where we shall bear some of the heat and burden of the day as we voluntarily assume responsibilities which will make our existence worth something to others as well as to ourselves. It can scarcely be otherwise than that we should be imbued with the spirit of service, since we have lived so close to a body of men who are actuated in their noblest endeavors by love of humanity and a desire to help their fellowman. In any work which we shall undertake, we will be well sustained by the society with which we are affiliated. In conformity to the idea that an Auxiliary is not an independent, but a "helping" organization, one which is subsidiary or necessary—we have awaited the endorsement of the Orleans Parish Medical Society on work which was planned for the first year. After considering our proposed plans over two meetings, the Society has recently sent a letter giving us free rein to work along three lines of endeavor, and pledging their assistance in what we desire to undertake. In her report, which reveals deliberation and wise judgment, Mrs. H. W. E. Walther has told you of the work outlined for the educational group—physical examination of the children of the pre-school age; co-operation with the vocational guidance organization in assisting children of the high school age who are financially unable to attend school; to encourage more schools to subscribe to the health magazine, Hygeia. The national president, Mrs. G. H. Hoxie of Kansas City, Missouri, writes that she considers educational work to be undoubtedly the great work of the Auxiliary.

Three requests have come in from three schools for help in the summer health round-up, and in a pre-school survey. After the chairman has been named and after she has chosen her vice-chairman and a group of co-workers, any member of the Auxiliary can communicate with the chairman and signify her willingness to serve in any way in which she may be needed. The same procedure may be followed out with regard to the philanthropic work of the Auxiliary, i. e., any member who feels that she would be particularly interested in the philanthropic work of the organization may indicate her willingness to help. The policy of the philanthropic group is at present more vague than that of the educational and social groups. Small yearly dues give at most a small treasury, but we must always remember that one of our expressed aims is to work in conjunction with other organizations. This is especially desirable and quite practicable in New Orleans where philanthropic work is so thoroughly organized. We may serve as connecting link between other charitable bodies and the needy one who may appeal to us for help. Such was the case in regard to the medical student who needed money for tuition this spring, who knew of nowhere to turn but to our organization, and who through the agency of the philanthropic committee received the assistance which he so sorely needed. A Jewish proverb says, "He who causes others to give, gives himself," so we may justly consider this piece of philanthropy to be the outcome of our work. We must also bear in mind that in our Commemoration Fund lies a possible source of income. This is that fund to which voluntary contributions are made in commemoration of a happy event in our lives; as also, of some serious circumstance, such as a sacred sorrow, which causes our hearts to overflow, and moves us to do something for others.

The work of the social group has been the great accomplishment of the first year of our existence. It was the first work which needed to be done, and that it was well done in every one of its departments is fully attested by the results obtained through Mrs. John H. Musser, chairman; her four associates and their committee members. A membership of 242 members built up in the course of a few brief months is a phenomenal achievement, and too much credit cannot be given to Mrs. S. M. Blackshear and her associates who

were so thorough in their canvas and so winning in their manner of invitation as to secure such remarkable results. I wonder if any other Auxiliary in any other State has ever had such a phenomenal growth. The telephone committee, under the leadership of Mrs. Chaille Jamison, is deserving of a sincere note of thanks for arduous duties faithfully performed. No small matter to reach by telephone each member of a large group for every meeting! It meant repeated calls, most unselfish service, and could only have been repaid by the splendid attendance which was the direct result of their efforts. The courtesy committee, with Mrs. W. H. Seeman as chairman, showed that it understood indeed the meaning and worth of kindliness and graciousness towards others. Visits to those who were glad, as well as to those who were sad; visits to the sick in hospitals; visits to the stranger within our gates; flowers to visitors belonging to the medical fraternity; these and other thoughtful expressions have set a good precedent to be followed in the future. The entertainment committee, with Mrs. Homer Dupuy as chairman, and Mrs. Thos. Walshe as vice-chairman, was small, but very efficient. The musical programs secured by them were varied and delightful. The homes opened through them for five general meetings denote a spirit of hospitality which was unbounding. That the hostesses and co-hostesses could entertain such large gatherings with such ease and graciousness was a matter of marvel. The meetings in the spacious and beautiful homes of Mrs. Ernest E. Allgeyer, Mrs. W. H. Seeman, Mrs. Chaille Jamison, Mrs. Thos. Walshe and Mrs. I. I. Lemann were thoroughly delightful and will stand out in our memories as worthy of our lasting appreciation.

The program committee, composed of Mrs. I. I. Lemann, Mrs. C. Jeff Miller and Mrs. J. A. Storck, planned an interesting program which was well carried out with the assistance of our doctor friends, Dr. C. Jeff Miller Dr. Homer Dupuy, Dr. G. Farrar Patton and Dr. Colby Rucker. The coming of these doctors before the auxiliary emphasized the mutual interests and the inter-relation of the Orleans Parish Medical Society and the Woman's Auxiliary. Publicity was handled by Mrs. Chaille Jamison in a dignified way, and served its purpose in arousing interest in our organization.

As I have been merely your presiding officer and cannot take any credit for the great amount of good work accomplished, I may be permitted to say frankly and freely that I do not think that any other organization has ever been better officered than our young Auxiliary. Our able secretary, Mrs. A. L. Levin, who has been helpful both in and outside the sphere of her responsible duties; our careful and capable treasurer, Mrs. Geo. Taquino; our efficient corrosponding secretary, Mrs. H. Theodore Simon, and our able parliamentarian, Mrs. John G. Pratt, have all been faithful to the obligations of their offices. I could conceive of nothing better than retaining all officers in their respective positions, for we have worked together in a spirit of perfect harmony and wholehearted co-operation. However, rotation in office is a policy which is becoming more and more general. While it is well to retain some officers for the continuance of policies and the carrying out of plans under way, still it is wise to bring in fresh workers, for each person has a different viewpoint and a new version which makes for growth in an organization. Whatever changes have been made by the nominating committee or may be made, are based, or shall be based, on this consideration alone.

As I close my report for the first year's activities of the Woman's Auxiliary to the Orleans Parish Medical Society, I wish to thank every one of you for the active work which you have done, or for the interest and enthusiasm which you have shown. It is one of the high spots of my life to have had the honor of being your president. As I have learned to know you, I have learned to love you; and when you have told somebody you love them there isn't anything else to say.

Respectfully submitted,

(Signed) MRS. J. A. STORCK.

LOUISIANA STATE MEDICAL SOCIETY NEWS

H. Theodore Simon, M. D., Associate Editor.

REPORT OF HOUSE OF DELEGATES TO GENERAL ASSEMBLY.

To the Officers and Members, General Assembly, Louisiana State Medical Society, 1930, Shreveport, La.

Gentlemen:

During the Annual Session of the State Medical Society your House of Delegates has held two meetings and transacted the following business:

In memory of Dr. Louis Abramson, a long and valuable member of organized medicine whose unfortunate death removed him from his activities, the House stood silent for two minutes. A Committee was appointed by the House of Delegates to represent them at the funeral.

The reports of the officers, councilors and various committees were properly submitted and as a result of the recommendations many constructive features were provided.

Provisions were made for the removal and equipping of our new offices in the New Hutchinson Memorial Building of Tulane University at Tulane and Loyola Streets, New Orleans.

The Fund allotted to the Walter Reed Memorial Fund, having reached its quota, was directed to be used in the future by the Committee on the Care of Indigent Physicians.

It was decided that the personal contributions of some twenty of our members made at the last meeting of the State Society should be considered by our organization as merely a loan to tide over any financial distress as a result of publishing the history of the Louisiana State Medical Society by Dr. Rudolph Matas. They reaffirmed their desire to finance and support the history as being prepared and which shortly will be published. The Secretary-Treasurer was instructed to reimburse Dr. Matas from the General Fund any personal expenditures which he had made up to date.

It was reaffirmed that the Committee on Scientific Work should be empowered to issue to out of state guests invitations to appear on the program, and urged that a most stringent effort be made to follow out this policy. Also essayists were requested to read their respective papers under the Section in which their papers deal.

Several matters of importance in regard to the activities of our Committee on Public Policy and Legislation were considered. They went on record as favoring the repeal of the State Narcotic Law and in opposition to the Porter Bill enlarging the provisions of the Harrison Narcotic Act, and to the Jones-Cooper Maternity Act which in principle extends the functions of the former Sheppard-Towner Act which expires by limitation. They endorsed the model caustic soda bill which had been endorsed by the American Medical Association, with the idea of having a uniform bill throughout the various states for the control of the sale and disposing of dangerous caustics to the public.

According to the recommendations of the Budget and Finance Committee and the Committee on Medical Defense, our Medical Defense Fund was increased 50c per capita per year until said fund reaches $10,000. Provisions were made for an additional stenographer to the Secretary-Treasurer's and General Manager's office to take care of the unprecedented growth of work in this Department.

Following the report of our Journal Committee, they recommended that efforts should be exerted to retain the contract for the publishing of the proceedings of the Mississippi State Medical Association, and to support the proposed plans and activities of the Journal Committee to secure contract with the Alabama State Medical Association for the publication of their proceedings.

Following the report of the Walter Reed Memorial Committee it was voted to make this Committee a permanent Committee to develop ways and means of establishing a suitable memorial in keeping with their recommendations.

Dr. J. E. Knighton was nominated to fulfill the vacancy which will occur on the State Board of Medical Examiners in August, 1930. The name of Dr. R. G. Douglas was also recommended in order to conform with the law concerning recommendations for appointment on this Board.

Amendment to the cahrter was passed creating members at large, with the object in view of

having Army, Navy and other medical officers of the United States Government avail themselves of membership in organized medicine if so desired.

The House went on record by resolutions as favoring the passage of a law by the General Assembly of the State of Louisiana looking toward tick eradication in our State.

A resolution taking recognition of the increase in crime and the reduction of same was referred to our Committee on Public Policy and Legislation, as was similar action taken looking toward the protection of the public against carbon monoxide gas poisoning in certain localities and under certain conditions in our State.

Resolutions recommending the establishment in Washington of an institute of hygiene were adopted, and instructions issued to send a copy of same to our Senator Ransdell at Washington.

Amendment to the charter was offered providing for the retention of our Ex-Presidents as an Advisory Board to the House of Delegates, with all the privileges excepting voting on constitutional offices.

They unanimously endorsed the plan of the George Washington Bicentennial for a national celebration of the birth of George Washington to take place in 1932.

The following resolutions were offered and unanimously adopted:

Whereas, members and guests of the Louisiana State Medical Society who have been in attendance upon the 1930 meeting in the City of Shreveport are deeply appreciative of the many courtesies received, we beg to submit the following:

Be it resolved, That we extend most sincere thanks to the officers, Dr. Robt. G. Douglas, President, and members of the Shreveport Medical Society for their untiring and most effective efforts to make our stay in their midst pleasant and profitable, and especially do we wish to thank Dr. J. M. Bodenheimer, the efficient Chairman of the Arrangements and Entertainment Committee, for contributing so much to our comfort and pleasure as well as to the success of the scientific and business programs.

Be it further resolved, That we extend our thanks to the Washington-Youree Hotel, Mr. Kile, Mr. Prowledge and Mr. Dietz, the efficient managers of these hotels, for the pleasant and splendid manner in which they have taken care of us.

Further resolved, That we are deeeply grateful for the delightful hospitality and sumptuous luncheons tendered the members of the Louisiana State Medical Society by the Shreveport Charity Hospital, Dr. E. L. Sanderson, the Shrine Hospital, Dr. H. A. Durham, the Highland Sanitarium, Drs. Hendrick-Lloyd and Company, the Tri-State Sanitarium, Drs. Willis-Knighton and Company, and the Schumpert Sanitarium, Sisters of the Incarnate Word.

Be it further resolved, That our thanks be extended to the Shreveport Times and the Shreveport Journal for the generous space devoted to our proceedings in their publications.

Be it further resolved, That our thanks be extended to the Ladies' Entertainment Committee, Mrs. W. S. Kerlin, Chairman, and her able group of assistants, and to the Broadmoor Golf Club, the Shreveport Country Club, Y. M. C. A., Elks, Columbia Club, the Woman's Department Club, for having made our stay in Shreveport so pleasant.

Be it further resolved, That our thanks and appreciation be extended to our Retiring President, Dr. Frank T. Gouaux, for his devotion and energetic efforts which have contributed to the successful history of our Society for the past year.

Be it further resolved, That we extend our most profound thanks to our worthy and efficient Secretary, Dr. P. T. Talbot, for the splendid manner in which he has conducted the affairs of his office, which has been evidenced by the outstanding progress manifested in our Society, and the high character of our scientific program offered at our present meeting.

Be it further resolved, That we give expression of our appreciation for the splendid executive ability displayed by the speaker of the House of Delegates, Dr. J. J. Ayo, whose expedicious and impartial rulings have greatly facilitated the work of that body.

That our thanks also be extended to our Assistant Secretary-Treasurer, Miss Mary Crossen, for her devotion to duty and the deep interest she has manifested in the discharge of her work at all times.

Dr. H. B. Gessner, as President-Elect, automatically becomes the President of the Louisiana State Medical Society following this meeting.

The following officers and committees were nominated and duly elected:

President-Elect—Dr. S. C. Barrow, Shreveport.

First Vice-President — Dr. S. J. Couvillon, Moreauville.

Second Vice-President—Dr. C. A. Weiss, Baton Rouge.

Third Vice-President—Dr. A. G. McHenry, Monroe.

Secretary-Treasurer—Dr. P. T. Talbot, New Orleans.

First District—Dr. H. E. Bernadas, New Orleans.

Second District—Dr. D. N. Silverman, New Orleans.

Fourth District—Dr. J. B. Benton, Minden.

Fifth District—Dr. C. P. Gray, Monroe.

Committee on Scientific Work—Dr. P. T. Talbot, Chairman; Dr. A. E. Fossier, Dr. Elizabeth Bass; all of New Orleans.

Committee on Public Policy and Legislation—Dr. B. A. Ledbetter, Chairman; Dr. E. L. Leckert, Dr. Roy B. Harrison, Dr. H. B. Gessner and Dr. P. T. Talbot; all of New Orleans.

Committee on Publication—Dr. P. T. Talbot, Chairman; Dr. Chas. Chassaignac, Dr. Jules Dupuy; all of New Orleans.

Committee on Medical Defense—Dr. R. O. Simmons, Chairman, Alexandria; Dr. E. L. Sanderson, Shreveport; Dr. P. T. Talbot, New Orleans.

Committee on Hospitals—Dr. Chas. Chassaignac, Chairman, New Orleans; Dr. J. L. Scales, Shreveport; Dr. O. P. Daly, Lafayette; Dr. C. P. Gray, Monroe; Dr. A. J. Comeaux, Youngsville.

Committee on Health and Public Instruction—Dr. W. H. Seemann, Chairman, New Orleans; Dr. F. R. Gomila, New Orleans; Dr. G. M. G. Stafford, Alexandria; Dr. J. Q. Graves, Monroe; Dr. J. K. Griffith, Slidell.

Committee on Journal—Dr. H. W. Kostmayer, Dr. S. M. Blackshear, Dr. Randolph Lyons, Dr. W. H. Seeman, Dr. John Lanford; all of New Orleans.

Delegate to American Medical Association—Dr. W. H. Seemann, New Orleans.

Alternate to American Medical Association—Dr. Arthur Herold, Shreveport.

Dr. E. L. Leckert was reappointed on the Committee on Budget and Finance for a term of three years by the Chairman of the House of Delegates.

Dr. J. J. Ayo was unanimously re-elected as the Speaker of the House of Delegates.

New Orleans, Louisiana, was voted as the next place of meeting in 1931, the dates to be determined by the Executive Committee.

Respectfully submitted,

P. T. TALBOT, M. D.,
Secretary-Treasurer.

NEWS ITEMS.

The following members of the faculty of the Graduate School of Medicine of The Tulane University of Louisiana participated in proceedings of the Louisiana State Medical Society held at Shreveport, Louisiana, April 29, 30, and May 1, 1930: Dr. W. O. Bethea, who presented a paper on the Treatment of Hyochloridia; Dr. H. Daspit, on The Immediate Handling of Sciatic Pain; Dr. E. Denegre Martin, Treatment of Fractures of the Pelvis; Dr. D. N. Silverman, The Digestive Tract in Pernicious Anemia. Dr. Rudolph Lyons participated in open discussions. Dr. J. E. Landry was also in attendance at this meeting.

Dr. Allan C. Eutis of the Graduate School of Medicine of The Tulane University of Louisiana was a guest of the Medical Section of the Texas State Medical Society at their meeting held at Mineral Wells May 5 to May 8, and addressed the group on Diagnosis and Treatment of Liver Dysfunction.

Dr. O. W. Bethea of the Graduate School of Medicine of The Tulane University of Louisiana was absent from the city from May 6 to May 15, to attend a convention for the revision of the United States Phamacopedia at Washington, D. C.

Dr. Urban Maes of the Graduate School of Medicine of The Tulane University of Louisiana attended the meeetings of the American Surgical Association and the American Association for Thoracic Surgery held at Philadeuphia, May 3.

Prof. W. J. Durel of the Graduate School of Medicine of The Tulane University of Louisiana attended a meeting of the American Sanatorium Association as well as the meeting of the National Tuberculosis Association held at Memphis, Tenn., May 12 to May 14, 1930.

THE ANNUAL MEETING OF THE WOMAN'S AUXILIARY OF THE AMERICAN MEDICAL ASSOCIATION.

The Editor of the Journal is in receipt of an announcement from Mrs. A. A. Herald of Shreveport concerning the Annual Meeting of the Woman's Auxiliary of the American Medical Association in Detroit, June 23. Mrs. Herold urges the wives of all the Louisiana doctors attending this meeting to become affiliated with the Woman's Auxiliary. In the Mississippi Section of the Journal will be found a detailed program of the meeting of the Woman's Auxiliary. This is not placed here in order to avoid duplication.

THE JOHN PHILLIPS MEMORIAL PRIZE.

The American College of Physicians announces the John Phillips Memorial Prize of $1500.00, to be awarded for the most meritorious contribution in Internal Medicine and sciences contributing thereto, under the following conditions:

(1) The contribution must be submitted in the form of a thesis or dissertation based upon published or unpublished original work.

(2) It must be mailed to the Executive Secretary of the American College of Physicians on or before August 31, 1930.

(3) The thesis or dissertation must be in the English language, in triplicate, in typewritten or printed form, and the work upon which it is based must have been done in whole or in part in the United States or Canada.

(4) The recipient of the prize would be expected to read the essay at the next Annual Meeting of the College, after which he would be officially presented with the prize by the President.

(5) The College reserves the right to make no award of the prize if a sufficiently meritorious piece of work has not been received.

(6) The announcement of the Prize winner will be made not later than two months before the Annual Meeting.

AMERICAN COLLEGE OF PHYSICIANS.
E. R. LOVELAND, Executive Secretary,
133-135 S. 36th St., Philadelphia, Pa.

Dr. Curtis Rosser announces the 31st Annual Meeting of the American Proctologic Society to be held in Buffalo, June 22, 23, 24, with headquarters at the Stattler Hotel. This meeting will immediatly precede the American Medical Association Meeting in Detroit.

THE AMERICAN ASSOCIATION FOR THE STUDY OF GOITER.

The Annual Meeting of this organization will be held July 10 and 11 in Seattle, Washington, and on July 12 the members will move to Tacoma, Washington. An unusually interesting program has been prepared. Some thirty-four speakers from all over the United States and Canada will participate. The list of speakers includes practically all of the men well known for their study of thyroid disease.

SPRING CONFERENCE, DALLAS SOUTHERN CLINICAL SOCIETY.

A total registration of 1,012 was reached in the Spring Conference of the Dallas Southern Clinical Society at the Baker Hotel, Dallas, April 14 to 18, inclusive. The visitors (exclusive of the guest speakers) came from ten Southern states, ranging from New Mexico to Virginia. Guest speakers who appeared daily on the program, included Drs. Logan Clendening, Kansas City; Geo. W. Crile, Cleveland; Vilray P. Blair, St. Louis; Francis M. Pottenger, Monrovia, Calif.; Frank Hinman, San Francisco; J. L. More, Boston; C. L. Scudder, Boston; J. F. Barnhill, Indianapolis; Otto H. Schwarz, St. Louis; C. C. Sturgis, Ann Arbor, Mich.; A. B. Moore, Rochester, Mnn.

PROPEDEUTIC MEDICAL CLINIC.

Ten lectures on the diseases of the lung with roentgen-ray projections and anatomical specimens, each lecture being followed by practical

demonstrations by MM. Bordet, Turpin, Kourilsky and Benda, occupying the positions of former clinical chiefs and clinical chiefs of the clinic.

Lectures will take place from October 20 to October 25, inclusive.

The afternoon will be devoted to theoretical lectures (from 2:30 p. m. to 3:30 p. m., and from 4 p. m. to 5 p. m.).

In the morning practical demonstrations will be held in the wards under the guidance of Professor Sergent.

A certificate, signed by the Professor and the Dean of the Faculty of Medicine of Paris, will be delivered after the course to every doctor who has attended it regularly.

For further information and registration, apply to the "Association pour le Développement des Relations Médicales," Salle Déclard, Faculté de Médecine, Paris 6e.

THE HEALTH OF NEW ORLEANS.

During the week ending April 26, 1930, 172 deaths occurred in the City of New Orleans, with a death rate of 20.9, 12 of these deaths occurring in children under one year of age. During the corresponding week of 1929 the mortality rate was 16.6. During the next week, May 3, there were 154 deaths in the City, 13 of which were in children under one year of age. The death rate corresponded exactly to the figures of 1929. During the week ending May 10, the death rate had fallen considerably. There were 137 deaths, giving a rate of 16.6. Seventeen deaths were in children under one year of age. During the corresponding week last year the deaths totaled 155. The death rate for the first 19 weeks of the year is 20.6, as contrasted with 21. last year. The death rate in the City of New Orleans is almost the highest of any City in the United States. To contrast a few other cities we find the death rate in Kansas City to be 12.8, in Louisville, 13.8, in New York, 14.2, Philadelphia, 13.3, St. Louis, 13., and Richmond, 15.3.

ST. TAMMANY PARISH MEDICAL SOCIETY.

St. Tammany Parish Medical Society met in regular monthly session at the Community Hall at Mandeville, La., May 9, 1930, 8 P. M. with the following members present: Dr. H. E. Gautreaux, Pres.; Dr. H. D. Bulloch, Secretary; Drs. Griffith, Polk and Singleton of Slidell; Drs. F. F. Young, Roland Young ad W. L. Stevenson of Covington; Drs. Paine, Maylie and Lawrence Young of Mandeville.

Invited guests: Drs. Chaille Jamison and Dr. H. W. Kostmayer of New Orleans.

The reading of the minutes was dispensed with, and the scientific program was next in order and the Chair in a few well chosen remarks introduced Dr. Chaillé Jamison of New Orleans who chose to speak about Hypertension. The Doctor, in his usual entertaining manner, covered the subject very fully, bringing to light the very latest ideas as to treatment, etc. After a limited discussion by the membership, Dr. H. W. Kostmayer of New Orleans was asked to speak. Dr. Kostmayer spoke of "Retro-displacements," speaking of the methods employed twenty years ago and those used today, bringing out the great improvement.

The Society gave Dr. Jamison and Dr. Kostmayer a standing vote of thanks for the trouble they had gone to, to come over to Mandeville to improve our knowledge and entertain us.

The Secretary brought out the fact that the Doctors of New Orleans have been very kind to accept our invitation to appear before us, from time to time, and that the members of the Society were actually getting some good Postgraduate instructions and felt very grateful for same.

Dr. Jamison suggested that in referring cases to the medical service in the Charity Hospital, that it might be of value to us to follow up these cases by requesting a complete report on said case and that he would be glad to have us furnished with such a report, which would enable us to know just what procedure was taken in arriving at diagnosis, treatment, etc. The suggestion was well received and will no doubt be caried out, in the future.

Meeting adjourned to meet next month in Covington.

H. D. BULLOCH, Sec.

MISSISSIPPI STATE MEDICAL ASSOCIATION NEWS

S. S. Lippincott, Editor

H. L. Rush, Associate Editor *D. W. Jones, Associate Editor*

TRANSACTIONS OF THE HOUSE OF DELEGATES, 1930.

The twenty-seventh annual session of the House of Delegates of the Mississippi State Medical Association met in the Auditorium of the Y. M. C. A., Vicksburg, May 13, 1930, at 8:15 a. m., President H. A. Gamble of Greenville, in the Chair. Roll call showed thirty-three members present.

E. F. Howard was elected a member of the Committee on Budget and Finance to succeed himself.

The following report of the Secretary was read:

To The House of Delegates, Mississippi State Medical Association, Vicksburg, Mississippi:
Gentlemen:

The Membership of the Association for 1929 was just a few in excess of one thousand. This is somewhat short of the 1928 record. The committee appointed in 1928 to investigate the feasibility of establishing a State Medical Journal was continued for one year, and should make a report at this session.

The following proposed changes in the Constitution introduced at the 1929 session should come up at this session for disposition:

"Article VI, Section 1. The officers of this Association shall be a President, a President-Elect, three Vice-Presidents, a Secretary, a Treasurer, an Historian, an Editor, and nine Councilors.

"Section 2. (Second sentence). The Secretary, Treasurer, Historian, Editor and Councilors shall be elected for terms of five years, etc.

"Article VII. The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) delegates selected by the component county societies, (2) the Councilors, (3) the Historian, (4) the Editor, (5) Ex-Officio, the President, the President-Elect, the three Vice-Presidents, the Secretary and the Treasurer of the Association, and (6) all Ex-Presidents, provided they still be members of the Association."

The committee appointed at the 1929 session to look into the advisability of adding a Section on Hospitals to the Scientific Sections was continued for one year and should make its final report at this session.

A charter was issued during the year to the Pike County Medical Society.

Respectfully submitted,

May 13, 1930. T. M. DYE, Secretary.

The financial report of the Treasurer was read by E. F. Howard, and was automatically referred to the Committee on Budget and Finance, as was also the financial report of the Secretary.

At this point a recess of five minutes was had for the selection of the Nominating Committee, the result being as follows:

First District	J. W. Lucas
Second District	A. J. Weissinger
Third District	G. S. Bryan
Fourth District	W. H. Curry
Fifth District	W. H. Scudder
Sixth District	I. W. Cooper
Seventh District	H. L. McKinnon
Eighth District	L. D. Dickerson
Ninth District	W. A. Dearman

The Committee on State Medical Journal made its report through D. W. Jones. This report advised against the establishing of a State Journal at this time. On motion the report was accepted and the committee discharged.

On motion the Secretary was authorized to renew the contract with the N. O. Medical and Surgical Journal for two years.

J. W. D. Dicks reported for the Committee appointed to look into the advisability of adding a Section on Hospitals to the Scientific Sections recommending that the section not be added. The report was accepted and the committee discharged.

The Constitutional changes proposed in 1929 were brought up and passed. E. F. Howard introduced the following proposed change in the By-Laws:

"Amend Chapter VI, Section 2, by adding the word 'Elect' following the word 'President' wherever it occurs in this section."

John C. Cully was appointed by the President to act on the Budget and Finance Committee during the absence of Albert Hand, whereupon the House adjourned to meet again on Thursday following the final adjournment of the Scientific Sessions.

Persuant to adjournment the House reconvened at 12:10 Thursday afternoon, May 15th, President Gamble presiding. Roll called showed fifty-six present.

The minutes of the preceding session were read and approved. W. L. Little reported for the Committee on Budget and Finance as follows:

To The House of Delegates,

Mississippi ,State Medical Association.

Gentlemen:

Your committee has audited and approved the accounts of the Secretary and of the Treasurer.

We recommend that the Treasurer's bond be increased to fifteen thousand dollars ($15,000.00).

We recommend that the following accounts be allowed:

Committee on Public Policy and Legislation:

I. W. Cooper	$100.00
F. J. Underwood	351.50
D. W. Jones (Secretary Council)	10.00

We suggest the following budget for 1930-31:

President's Expense Account	$ 100.00
Secretary's Salary	500.00
Secretary's Expense	100.00
Editor's Expense	300.00
Historian's Expense	100.00
Council's Expense	100.00
N. O. Medical & Surgical Journal	1000.00
Transactions	100.00
Incidentals	50.00
Expenses Annual Meeting	300.00
Total	$2650.00

Signed,
W. L. LITTLE,
E. F. HOWARD.

The above report of the Budget and Finance Committee was adopted. The Committee on Public Policy and Legislation made its report through F. J. Underwood, which report was adopted. (See Exhibit D).

Henry Boswell offered a resolution of thanks for the splendid entertainment given by the Issaquena-Sharkey-Warren County Medical Society, which resolution was adopted by a rising vote.

On motion of W. H. Frizell the House stood with bowed heads for one minute out of respect to our dead.

The Council made its report through its Secretary, D. W. Jones which report was adopted. (See Exhibit C).

The Nominating Committee reported as follows:

To The House of Delegates,
Mississippi State Medical Association:

Gentlemen:

We, the Nominating Committee, after due consideration, beg to submit the following nominees:

For president: E. F. Howard, W. H. Anderson, W. L. Little.

For President-Elect: J. C. Culley, J. W. D. Dicks, R. H. Foster.

For Vice-President: C. W. Patterson, M. J. L. Hoye, L. L. Polk.

For Councilor Second District: L. L. Minor.

For Councilor Third District: M. W. Robertson.

Delegate, A. M. A.: H. A. Gamble. Alternate: Henry Boswell.

Fraternal Delegate: Arkansas, E. L. Wilkins; Louisiana, L. S. Lippincott; Alabama, V. B. Philpot; Tennessee, A. L. Emerson.

Historian: P. W. Rowland.

Editor: L. S. Lippincott.

Associate Editor, One Year: H. L. Rush; Two Years, D. W. Jones.

Signed,
G. S. BRYAN, Chairman,
W. A. DEARMAN, Secretary.

W. L. Little and W. H. Anderson, rising on points of personal privilege, asked that their names be withdrawn as nominees for President, whereupon on motion the Secretary cast the vote of the House for E. F. Howard.

C. C. Hightower withdrew the name of R. H. Foster, and ballots were prepared for the other nominees for President-Elect, resulting in the election of J. C. Culley.

While the ballots were being prepared for the above vote a motion was sustained that the Secretary cast the vote of the House for the remaining nominees.

Meridian, Greenville and Jackson were nominated for the 1931 meeting place. Jackson was selected.

D. C. Montgomery was elected a member of the Committee on Budget and Finance to succeed E. F. Howard who had just been elevated to the Presidency.

The House adjourned to meet in Jackson at eight o'clock on the morning of the second Tuesday in May, 1931.

Signed,
T. M. DYE, Secretary.

IMPORTANT NOTICE

The Mississippi State Board of Health announces that the examination for license to practice medicine will be eld at Jackson, Miss., in House of Representatives, New Capitol Building, Thursday and Friday, June 26 and 27, 1930.

Write at once for examination blank and instructions. Send or bring your diploma for verification.

FELIX J. UNDERWOOD, M. D., Secretary.
R. N. WHITFIELD, M. D., Asst. Secretary.

ISSAQUENA-SHARKEY-WARREN COUNTIES MEDICAL SOCIETY

Because of the meeting of the Mississippi State Medical Association, no meeting of the Issaquena-Sharkey-Warren Counties Medical Society was held in May.

In place of the regular June meeting, the Society will join with the Fifth District Medical Society of Louisiana for a joint meeting at Monroe and Sterlington. Dr. C. L. Mengis, President and Dr. Frank P. Rizzo, Secretary, of the Fifth District Society have issued personal invitations to the members of the Issaquena-Sharkey-Warren Counties Society. Several excellent papers and many entertainment features are planned. The date of the joint meeting is Tuesday, June 10.

VICKSBURG SANITARIUM

The regular monthly meeting of the staff of the Vicksburg Sanitarium was held on May 10. After a general business session which included Reports from the Records Department and analysis of the work of the hospital, the following special case reports were made:

1. Ruptured Tubal Pregnancy with Complicating Meckel's Diverticulitis.—Dr. G. M. Street.
2. Acute Traumatic Osteomyelitis of the Cranium with Extradural Abscess.—Dr. J. A. K. Birchett, Jr.

Dr. A. Street presented reports of the recent meetings of the Louisiana State Medical Society at Shreveport and of the Illinois Central R. R. Surgeons at Memphis.

Dr. Clark made a special report on "Some Factors in Thoracic Pain."

Selected radiographic studies were shown as follows: Epiphyseal separation of the lower humerus with backward dislocation; fracture-dislocation of the ankle joint; impacted fracture of hip; fracture of the bodies of the ninth and tenth thoracic vertebrae; cholelithiasis; calcified lymph nodes simulating ureteral calculus; ureteral calculus; nephrolithiasis (2 cases).

The meeting adjourned after a lunch.

Dr. A. Street, Vicksburg, attended the recent meeting of the Louisiana State Medical Society at Shreveport as the fraternal delegate from the Mississippi State Medical Association. Dr. J. S. Ullman, Natchez, who was elected fraternal delegate at the 1929 meeting of the Mississippi State Medical Association, was unable to attend the meeting.

WINONA DISTRICT MEDICAL SOCIETY

From Dr. Edward C. O'Cain, Winona:

"The Winona District Medical Society held its regular meeting at the Wisteria Hotel March 17, with Dr. E. C. O'Cain, Winona, President and Dr. J. K. Avent, Grenada, Secretary.

"This was the best meeting in the history of the organization from the standpoint of attendance and enthusiasm. Every county in the district was well represented and there were guests and visitors from Jackson, Greenville, and Memphis, Tenn.

"Those appearing on the program were: Dr. Hugh Gamble, President of the Mississippi State Medical Association; Dr. Frank Hagerman, Jackson; Dr. R. E. Wilson, Greenville; Dr. Gilbert Levy, Memphis, Tenn.

"The Society sent personal representatives to each doctor in Holmes and Attala counties inviting them to join the Winona District Society and without a single exception this invitation was accepted and a petition will be presented to the State Medical Association for this annexation. This will give the Winona District the territory and the material for one of the best societies in the state."

ANDERSON INFIRMARY

The regular Staff Meeting of the Anderson Infirmary, Meridian, was held May 9. After the regular business of the Staff and the report from the Records Department for the month of April, the following special papers and reports were presented:

1. Cholelithiasis.—Dr. T. D. Bourdeaux.
2. Some Statistics on Malignancies of the Uterus and Adnexa.—Dr. C. R. Stingily.

Dr. H. F. Tatum is President of the Staff.

AMERICAN ASSOCIATION FOR THE STUDY OF GOITRE

Dr. A. G. Payne, Greenville Councilor for Mississippi of the American Association for the Study of Goitre has announced that the annual meeting of the Association will be held in Seattle, Washington, on July 10 and 11. Dr. Payne would be pleased to hear from any members of the Mississippi State Medical Association who are interested in this important subject.

NORTH MISSISSIPPI SIX COUNTY MEDICAL SOCIETY

Dr. A. H. Little, Secretary of the North Mississippi Six County Medical Society sends the following:

"I am enclosing about the only, and in my opinion, the biggest bit of news from the North Mississippi Six County Medical Society for the current month.

"It will hardly be possible for me to come down to the State Meeting this time."

Enclosure:

Announcing the Arrival of Our Baby:
Robert Ashford.
Weight, 7½ pounds.
Date, May 5, 1930.
Dr. and Mrs. A. H. Little

The above was submitted to Dr. J. A. K. Birchett, Jr., Vicksburg, and he comments: "I call that a very commendable piece of news. As a censor I pass on it."

Dr. Cooper, please take notice.

STATE DEPARTMENT OF HEALTH

The following were visitors to the State Department of Health at Jackson during the month of April: Dr. R. C. Williams, U. S. Public Health Service, Washington, D. C.; Dr. J. J. Durrett, Chief, Drug Control Division, Department of Agriculture Washington D. C.; Mr. N. H. Moore, Registrar Vital Statistics Department, State Board of Health, Oklahoma City, Oklahoma; Dr. D. T. Nowden, Director of Laboratories and Rural Sanitation, State Board of Health, Oklahoma City, Oklahoma.

WOMEN'S AUXILIARY OF A. M. A.

Mrs. M. H. Bell, President of the Women's Auxiliary of the Mississippi State Medical Association, at its meeting in Vicksburg in May, urged attendance at the Annual Meeting of the National Auxiliary to be held in Detroit, June 23-27. Mrs. Bell has furnished the following information in regard to this meeting:

"Plans for the annual meeting of the national Auxiliary in Detroit, June 23-27, come on apace. The Auxiliary as an organization is occupied only with business affairs, and has nothing whatever to do with any social gatherings except the official Auxiliary luncheon. Its members are Mrs. William Gerry Morgan, D. C.; Mrs. Olin West, Ill.; Mrs. L. T. Harris, Mich.; Mrs. Walter Jackson Freeman, Pa., and Mrs. Southgate Leigh, Va., Chairman. Mrs. Basil Loren Connelly is chairman of the Detroit committee for the convention proper, and Mrs. Burt Shurley of the social activities.

"The roof garden of the Hotel Tuller, next to the Statler, will be headquarters for all Auxiliary business-registration, meetings, etc., and the Auxiliary luncheon on Tuesday, June 24. There will be no registration fee, but members will buy their own luncheon tickets—$1.50. The registration bureau will be open Monday, Tuesday and Wednesday, June 23, 24, 25, from 9 to 4, Thursday and Friday, June 26, 27, from 9 to 12. Programs, badges, etc., may all be procured here, and invitations, tickets and transportation cards must all be procured here in advance, as only programs may be procured elsewhere.

"The meetings, as you all know, are open to every woman attending the Convention, and under Mrs. Hoxie's leadership they are bound to be well worth the trip. There will be three morning sessions Tuesday, Wednesday and Thursday, June 24, 25, 26. The afternoons and evenings are all left free for sight-seeing and social activities, for which many plans are in the making. Details have not yet been announced, but they include motor and boat excursions, and visits to some of the handsome private estates in the environs, including that of Mr. Henry Ford. The Detroit Museum of Art is among the best in the United States. No parties have been scheduled during business hours.

"No one may represent her state in any capacity whose State dues are not fully paid. The chairman of the Committee on Credentials and Registration is Mrs. Ledru Otway Geib, 3860 St. Clair Avenue, Detroit.

"Only delegates may take an active part on the floor of the convention, but alternates should attend all sessions and hold themselves in readiness to take their delegates' place if necessary. All resolutions must be in writing and signed, and in the hands of the committee 24 hours before the session at which they are to be presented. Mimeographed copies will be distributed to the delegates as they take their seats. The chair-

man of the Committee on Resolutions is Mrs. Augustus S. Kech, 218 Logan Avenue, Altoona, Pennsylvania."

PROGRAM.

Monday, June 23, 2:30 p. m. Meeting of the Board of Directors—Statler Hotel. All state presidents and presidents-elect are asked to time their arrival and stay in Detroit so as to be able to attend the Pre-Convention and Post-Convention Board Meetings.

Tuesday, June 24, 9:00 a. m. Registration. Auxiliary Headquarters—Hotel Tuller.

9:30 a. m. Business Meeting.

1:00 p. m. Luncheon, Hotel Tuller Roof Garden. Speakers will be announced later.

Wednesday, June 25, 9:00 a. m. Registration, Hotel Tuller.

10:00 a. m. A Workers' Conference.

The Purpose of the Auxiliary.

The National Program.

Analysis of the Work of State Auxiliaries on the Basis of the Official Program of the National Auxiliary, conducted by Mrs. Evarts V. De Pew, assisted by all State Presidents. This discussion is planned to be a workers' conference in the real sense of the word. The discussion will be interesting and exhilarating to any doctor's wife; but it should be especially valuable to state presidents, presidents-elect, and committee chairmen, and to the corresponding county officers.

Thursday, June 26, 9:00 a. m. Mrs. J. Newton Hunsberger presiding. Post Convention Board Meeting.

10:00 a. m. Round Table for State Presidents and Committee Chairmen. Chief Purposes of the State Annual Meeting. Adequate Preparation for the State Meeting.

Agenda for the State Meeting.

Duties of State Board Members, Especially of the President and Committee Chairmen.

MERIDIAN AND VICINITY

Dr. I. W. Cooper, Meridian, furnishes the following:

"It is with a great deal of pleasure that the continued and constant improvement in the case of Dr. S. H. Hairston is reported. He has been confined to his bed for the past five weeks following a heart attack. His condition at the present time is certainly very gratifying.

"The many friends of Dr. Julian T. Bailey rejoice with him in the improvement of Mrs. Bailey's condition. She has been sick for some several months. It now seems that she is going to be entirely well.

"The following members of our Society attended the meeting of the Illinois Central Surgeons in Memphis on May 2 and 3, namely, Drs. K. T. Klien, A. G. Touchstone, I. W. Cooper of Meridian, Dr. W. G. Gill of Newton. This was a wonderful meeting and one that was very much enjoyed by all of us.

"Drs. M. L. Flynt of Newton and I. W. Cooper of Meridian were the members of our Society who attended the meeting of the Gulfport, Mobile and Northern Surgeons in Jackson in April.

"Dr. Leslie V. Rush attended the meeting of the Alabama State Medical Association held in Montgomery during the later part of April.

"The program of the Mississippi State Medical Association looks mighty good and the various chairmen are certainly to be congratulated, and the entertainment outlined by the Vicksburg physicians together with this wonderful program certainly makes this meeting very attractive.

"Medical activities have been very quiet in this section for the past month. There is nothing else to report."

STATE ASSOCIATION MEETING NOTES

A dinner was tendered to the Past Presidents of the Association by Drs. H. H. Haralson, and S. W. Johnston at the latter's residence on Tuesday. Of the twenty-six living past presidents, twenty were in attendance. Of the six not present two were ill and the other four were prevented from attending by pressing engagements. Drs. H. A. Gamble, President of the Association, and J. Shelton Horsley, Richmond, Virginia, were guests of honor. Past presidents present were Drs. T. W. Rowland, Oxford, H. H. Haralson, Vicksburg, C. D. Mitchell, Fondren, W. W. Crawford, Hattiesburg, R. S. Curry, Jackson, J. W. Gray, Clarksdale, T. W. Jones, Jackson, D. J. Williams, Gulfport, S. W. Glass, Clarksdale, I. W. Cooper, Meridian, T. M. Dye, Clarksdale, Willis Willey, Jackson, F. J. Underwood, Jackson, Henry Boswell, Sanatorium, S. W. Johnston, Vicksburg, W. A. Dearman, Gulfport, G. S. Bryan, Amory, T. E. Ross, Hattiesburg, John Darrington, Yazoo City, W. H. Frizell, Brookhaven.

An innovation this year was the scientific exhibits by Dr. A. G. Wilde, Jackson; Dr. F. M. Smith, Director of the Warren County Health Department, Vicksburg, and the Vicksburg Sanitarium and Crawford Street Hospital, Vicksburg.

Wednesday noon the members of the Association and of the Women's Auxiliary enjoyed a boat ride on the Steamer George Miller. The trip included a visit to Lake Centennial and to the site of the New Vicksburg Bridge. Refreshments were served aboard the boat and an orchestra furnished music for dancing.

Dr. J. H. Musser, New Orleans, was the fraternal delegate from the Louisiana State Medical Society.

For the evening session on Tuesday, to which the public was invited, invocation was made by Rev. Gordon M. Reese, Vicksburg; addresses of welcome were given "On behalf of the City of Vicksburg," by Mayor W. J. Hossley, Vicksburg; "On Behalf of the Issaquena-Sharkey-Warren Counties Medical Society," by Dr. Laurence J. Clark, Vicksburg. The response to the addresses of welcome was made by Dr. R. Curtis Smith, Drew. Dr. H. A. Gamble, Greenville, delivered the President's address, "The Relation Existing Between Organized Medicine and the Public." Dr. J. Shelton Horsley, Richmond, Virginia, delivered the Annual Oration on "Carcinoma of the Stomach." Mrs. Sarah Frances Busic, Clinton, rendered two beautiful vocal selections. Mrs. W. G. Gill, Newton, was accompanist.

On Wednesday night, some four hundred members of the association and the Woman's Auxiliary and guests were entertained at the Vicksburg Fair Grounds with a barbecue and a sports card. The menu consisted of barbecued beef, fried fish, Italian spaghetti and meat balls, rolls, and cold drinks. The sports card included a four-round boxing bout, a wrestling match, and a "battle royal." During the evening Dr. Edley H. Jones, chairman of the Entertainment committee, presented to Dr. R. I. Welsh, Pine Hills, a beautiful silver golf trophy which Dr. Welsh won in the tourney. Dr. Welsh had a final score of sixty-five. His out was forty-four and his in forty-five, and the club handicap was twenty-four.

Music was furnished by the fine Saint Aloysius College band under the direction of Professor Alfred Setaro.

Automobile rides were given to the members of the Association and of the Auxiliary on Tuesday and Wednesday afternoon. The visitors were taken through the beautiful National Military Park, to the new Vicksburg bridge, and to other interesting points about the city and county.

A number of fishing trips were arranged for the pleasure of the visiting doctors and their ladies.

The registration of physicians at the meeting was 252.

WOMAN'S AUXILIARY

At the concluding session of the Woman's Auxiliary of the Mississippi State Medical Association held May 15, the following officers were elected: Mrs. L. L. Polk, Purvis, President; Mrs. G. D. Mason, Lumberton, president-elect; Mrs. Augustus Street, Vicksburg, first vice-president; Mrs. W. C. Poole, Cary, Second vice-president; Mrs. Henry Boswell, Sanatorium, recording secretary, Mrs. E. C. Parker, Gulfport, treasurer; Mrs. D. J. Williams, Gulfport, parliamentarian.

Councilors: First district, Mrs. M. L. Cockerham, Gunnison; Second district to be appointed; third district, Mrs. Jim Hill, Corinth; fourth district, to be appointed; fifth district, Mrs. Iva Parsons, Jackson; sixth district, Mrs. W. G. Gill, Newton; seventh district, Mrs. C. C. Hightower, Hattiesburg; eighth district, Mrs. W. L. Little, Wesson, ninth district, Mrs. B. Z. Welch, Biloxi.

APPOINTMENTS MADE

Mrs. Polk, the incoming president, upon assuming her office made the following appointments:

State program chairman, Mrs. Sydney Johnston, Vicksburg; State chairman for Preventorium Fund, Mrs. D. J. Williams, Gulfport.

Delegates to the American Auxiliary meeting at Detroit in June, Mrs. L. L. Polk, Purvis, and Mrs. Augustus Street, Vicksburg.

The meeting was pronounced one of the most successful the Auxiliary ever held.

These addresses, made by members of the Mississippi State Medical Association, featured Wednesday's meeting of the auxiliary. The speakers were Dr. H. A. Gamble, president of the association; Dr. F. Michael Smith, Vicksburg.

Dr. Gamble in his address emphasized the need of better facilities and more social life for the nurses in training; Dr. Boswell spoke on the need of equipment for the Preventorium at Sanatorium, and the Auxiliary is to centralize on this subject for the coming year. This will consist of equipment for the playgrounds, books, etc., for the children at the Preventorium. This preventorium is not for tuberculous children, it being for under-nourished children between the ages of 4 and 11 years. There are fifty children now at the preventorium at Sanatorium.

Dr. Smith in his talk stressed the program of study for the Auxiliary for the coming year.

At the Wednesday morning session the Invocation was given by Mrs. I. C. Knox, of Vicks-

burg, the welcome address was made by Mrs. Augustus Street, Vicksburg and the response given by Mrs. L. L. Polk, Purvis.

Mrs. M. H. Bell, Vicksburg, president of the Auxiliary, made her address which was most interesting, and which covered in detail the excellent work done by the Auxiliary during the past year.

RECOMMENDATIONS RECEIVED

At the executive board meeting on Tuesday morning recommendations made and favorably acted upon were for a state publicity chairman, for Public Health pamphlets to study in local auxiliaries and to ask for advisory council for the medical association.

It was decided the special work of the Auxiliary during the year would be for the securing of funds for the preventorium at Sanatorium.

The nominating committees appointed follow: Mrs. Augustus Street, Vicksburg, chairman; Mrs. W. G. Gill, Newton; Mrs. D. J. Williams, Gulfport; Mrs. W. L. Little, Wesson; Mrs. C. C. Hightower, Hattiesburg.

RESOLUTIONS

The following resolutions were adopted by the Auxiliary:

Whereas, the Medical Auxiliary of the Mississippi State Medical society is stressing health education and

Whereas, we have within our own state institutions for the prevention and cure of tuberculosis second to none in the United States and

Whereas, the legislature, through the efforts of Dr. Henry Boswell, has erected a beautiful and commodious building termed "The Preventorium," and

Whereas, we are informed by Dr. Boswell that many things in the way of equipment are lacking and needed—

Be it, therefore, Resolved:

That the Woman's Auxiliary take up this line of preventive health work and that a state chairman be appointed by the president to collect funds, said funds to be turned over as collected to Mrs. Henry Boswell.

Whereas we consider the suggestions offered by Dr. H. A. Gamble regarding our social obligations to the undergraduate nurse of the state of great importance.

Be it, therefore, Resolved,

That a copy of his address be mailed to every local auxiliary in the state with the request that his recommendations be read and adopted as a definite line of work.

Be it further Resolved,

That in towns where there are nurses' training schools and no organized medical auxiliary, a copy be sent to a state-wide member of the Auxiliary, if one be available, or if not, to the key woman of the community, with the same request.

Whereas, we are informed that the Medical Auxiliary can greatly assist in looking after children who have been dismissed from the State Preventorium.

Be it therefore, Resolved

That Dr. Boswell inform the president of the local Auxiliary when a child is returned to his home with such recommendations as he deems necessary for the welfare of the child. Where there is no organized auxiliary we suggest the wife of a physician be notified.

Whereas, the future strength of the Woman's Auxiliary to the Mississippi State Medical Association depends upon support of the state and local medical societies,

Be it, therefore, Resolved:

That the local and state auxiliaries appoint advisory committees to confer with like committees from the state and local societies with the secretaries as chairmen of both said committees.

Madam Chairman, and Members of the Mississippi State Medical Auxiliary:

In behalf of the visiting ladies attending the present convention, it is the pleasure of your courtesy committee to thank the Vicksburg Auxiliary for the many courtesies extended us during our stay in the city. We shall confirm the statewide reputation Vicksburg already enjoys of being a great convention city with the most gracious hosts and hostesses. Among our golden memories will be numbered this association with you. In fact the committee endorses numerous suggestions heard on various occasions, that Vicksburg make this a permanent affair.

Whereas, the Vicksburg Hotel has spared no effort to provide for our entertainment, and we have had the most courteous attention and service from managers and employees of the hotel,

Therefore, be it Resolved,

That we extend most cordial thanks to the hotel management in appreciation.

Respectfully submitted,

MRS. C. C. HIGHTOWER,
MRS. G. D. MASON,
MRS. W. D. McCALIP.

BOOK REVIEWS

The Care of the Nose, Throat and Ear: By W. Stuart-Low, F. R. C. S. (Eng.). 2d Ed. London. Bailliere, Tindall and Cox. 1929. pp. 89.

This little volume of 88 pages is written in a popular vein for the information of the general public. The anatomy of the ear, nose and throat are briefly described and the commoner diseases of these parts are discussed. The book is one which may safely be placed in the hands of selected laymen.

H. KEARNEY, M. D.

A Text Book of the Practice of Medicine: By various authors. Edited by Frederick W. Price, M. D., F. R. S. (Edin.). 3d Ed. Lond., Oxford Univ. Pr. 1929. pp. 1871.

The fact that this is the third edition of this single volume text book of the practice of medicine speaks for its continued popularity among the profession. The various authors of this volume are British and well known authorities upon their subject. Some 1750 pages of text have been incorporated into a comparatively small book, not, however, without some sacrifice to paper and print. The whole range of medicine is covered, including a section on diseases of the skin and another upon psychological medicine. The reviewer in looking over the book was impressed by its thoroughness and clearness. He was especially impressed by the section on diseases of the circulatory system by the editor. This subject covers some 240 pages and is the most comprehensive the reviewer has ever had the good fortune to come across in a one volume text book on medicine. The book is thoroughly up to date and a credit to the London School of Medicine.

RANDOLPH LYONS, M. D.

Diseases of the Blood: By Paul W. Clough, M. D. New York, Harper & Bros. 1929. pp. 310.

Harper & Brothers are to be congratulated for bringing out so excellent a book at a price so moderate. The subject matter is just what is to be desired—a description of the various types of blood corpuscles, a brief discussion of their origin and functions, an outline of the varieties of leukocytosis and leukopenia, together with a brief discussion of the diagnostic and prognostic value of the differential blood picture, and finally, a description of the various blood diseases. The information given is up to date and scientific and is presented clearly and systematically. The book has obviously been carefully prepared and is full of important facts brought out by recent investigations. The claim of the publishers that this book should prove a valuable companion to the physician in his practice is fully justified.

M. M. WINTROBE, M. D.

The Volume of the Blood and Plasma: By Leonard G. Rowntree, M. D., George E. Brown, M. D., Grace M. Roth. Philadelphia, W. B. Saunders Co. 1929. pp. 219.

This volume presents the information and experience concerning the total volume of circulatory blood which has accumulated since Rowntree, Keith and Geraghty introduced a dye method for determining total blood volume in 1915. The dye method is discussed in considerable detail and the criticisms which have been levelled against it from time to time evaluated. Normal values based on a study of 49 men and 25 women are presented, and their relation to body build, sex, age, and other factors discussed. The authors rightly point out the need for systematic and logical nomenclature in this field, recommend that such terms as plethora and hydremia be discarded, and propose a new classification. Their clinical cases include quite a variety of conditions but unfortunately the number studied in each group is limited. From their results it appears that many formerly maintained conceptions regarding the total quantity of blood in the body in disease must be revised. For example, in hypertension Rowntree and his associates have found normal or even low blood volume values, thus contradicting the doctrine of plethora and negating the indication for venesection in this disease. Likewise in glomerulo-nephritis they have found no "hydremic plethora" but blood volume values below normal. Admittedly the surface of the subject of blood volume has just been scratched, but this book should call attention to the importance of total blood volume studies in clinical investigation.

M. M. WINTROBE, M. D.

Disorders of the Sexual Function: By Max Huhner, M. D. 3rd Ed. Philadelphia, F. A. Davis Co. 1929. pp. 342.

Dr. Huhner very thoroughly covers the sexual disturbances commonly classified as sexual neuroses.

He clearly defines each of the conditions considered and stresses the necessity of a thorough genito-urinary examination which he states in most instances will indicate geni-urinary treatment. He considers this subject from the standpoint of the urologist who has studied these conditions with the neurologist.

MONROE WOLF, M. D.

Handbook of Bacteriology For Nurses: By Harry W. Carey, A. B., M. D. Philadelphia, F. A. Davis & Co., 1930. 3rd rev. ed. pp. 282.

This is a standard text book for nurses brought up to date. In arrangement, it follows the general lines of Zinsser's bacteriology, from which the majority of illustrations are obtained, and recounts in a general way the outstanding facts pertaining to the various pathogenic bacteria. Quiz questions for a summary conclude each chapter.

A list of suggested laboratory exercises, demonstrations and notes on the collection of material for laboratory examinations are included.

This guide leaves very little to be desired as a text for teaching purposes.

F. M. JOHNS, M. D.

Diseases Transmitted From Animals to Man: By Thomas G. Hall. Springfield, Ill., Charles C. Thomas. 1930. pp. 350.

The motif for this most valuable little book is a statement made by Edward Jenner of London in 1796, which appearing as a prologue is striking enough to insert here in full, in spite of the usual editorial plea for brevity in reviews:

"The deviation of man from the state in which he was placed by nature seems to have proven to him a prolific source of diseases. From the love of splendor, from the indulgences of luxury, and from his fondness for amusement, he has familiarized himself with a great number of animals, which may not originally have been intended for his associates."

"The wolf, disarmed of ferocity, is now pillowed in the lady's lap. The cat, the little tiger of our island, whose natural home is the forest, is equally domisticated and caressed. The cow, the hog, the sheep and the horse, are all for a variety of purposes brought under his care and dominion."

In a very concise and readable way, the author reviews briefly, in chapters dealing with each disease, the general type of disease, history, geographical prevalence, animal and human susceptibilities; the infectious agent, the course of the disease in both man and animals, preventive or therapeutic measures, and then summarizes the items of note in each chapter. A complete bibliography accompanies each division.

In a general way, I think, all of us physicians realize that either directly or indirectly, our animal associates are responsible for some of the more rarely met disorders, but after scanning through these pages and finding some 20 or more diseases directly derived from animals, and any number of others that may also be passively disseminated, one begins to realize the full truth of Jenner's philosophy.

The chapter on tuberculosis is especially interesting. Records are quoted showing 2.9 per cent of tuberculosis in adults proves to be bovine in type and consequently much less severe than the human variety. In children under five years of age it has been found that 32 per cent was bovine tuberculosis. And yet, medically directed health boards have allowed non-pasteurized milk to be openly sold to the public when there are 16,700 examinations on record showing tubercle bacilli in 8.6 per cent of such milk.

Actually it is much more important to prevent tuberculosis among cattle for the cattle's sake it would seem. In 1918 there were 22,212 cows passed as free from tuberculosis. Eleven years later (1929) 8,047,540 passed a triple tuberculin test. Good cows free from tuberculosis give plenty of milk; why worry about a few sickly children or undernourished adults.

Some unfavorable experimental data with Calmette's B. C. G. in calves would indicate the comparatively modern writing of Dr. Hall.

The historical references in many of these chapters will appeal to many. Apparently anthrax (charbon) goes back with plague to the beginning of things. Moses threatened Pharoh's cattle with "murrain," the records further asserting that all the cattle of Egypt died. The cutaneous lesions, so familiar to the country practitioners of Southwest Louisiana, were first described by Hippocrates, Galen, and Pliny. In 1613 the South of Europe lost 60,000 people in one epidemic, and it is still within the writer's recollection when the ban of the killing of buzzards was lifted in this country. The modern knowledge of septicemia began in 1849 by the discovery of anthrax bacilli in the blood stream by Pollender, a French physician in Dijon.

Undulant fever, infectious abortion, tularemia, glanders, rabies, psittacosis, plague, rat-bite fever, spotted tick fever, paratyphoid, smallpox and animal parasitic diseases are discussed in a general way. There is no attempt to bore the reader with great detail and in consequence one may gather a good general up-to-date idea of the advances in knowledge along these increasingly important lines.

Aside from the knowledge of value to be gained from the perusal of such a book in its direct application to our immediate specialty, as physicians and outstanding personalities in the community we should be better informed on such diseases as are more or less common to man and animals, for

if we could talk more authoritatively with our lay friends, be they lawyers, lawmakers, scientists, detail men or even "new-cure" enthusiasts in our own profession of the large number of diseases common to man and animals much could be done to allay the ever increasing tide that runs to Charlatanism. Veranus A. Moore, the great animal pathologist, has remarked of diseases and disease complexes: "There is but one medicine. *If there are differences* they exist only in the species attacted." The italics constitute my addition to this statement.

F. M. JOHNS, M. D.

Applied Physiology: By Samson Wright, M. D., M. R. C. P., 3rd ed. London, Oxford University Press. 1929. Pp. 552.

The popularity of this book is attested to by the fact that within three years different editions have been published. This third edition follows the same general form as have the previous ones. New material has been added, such as the section on the conditional reflexes, a discussion of some of the active components of the glands of internal secretion, such as oestrin, and presentation of new material concerning glutathione. The book has much to recommend it. It gives a most excellent scientific explanation of the various physiologic disturbances that occur in disease.

J. H. MUSSER, M. D.

Practical Massage & Corrective Exercises: By Hartvig Nissen. 5th ed. rev. and enl. Philadelphia, F. A. Davis Co. 1929. Pp. 271.

This book is one whose value is greatest to those well versed in massage and corrective exercises rather than the student. It is fairly characteristic of the type of massage used and recommended by the Swedish schools and not in accord with the the more gentle types of massage thought useful in connection with inflammatory conditions.

The corrective exercises are most useful and are instructive to any one interested in this type of work. There is a tendency to deal too much with the pathological conditions, requiring the services of one whose knowledge of medicine is much greater than the author's. As a practical reference for graduates in medicine it has some value.

JOHN T. O'FERRALL, M. D.

A Text-Book on Orthopedic Surgery: By Willis Campbell, M. D., F. A. C. S. Philadelphia, W. B. Saunders Co. 1930. Pp. 705.

This new volume, on the subject of orthopedics, is a very excellent one, but the author's bent is directed more towards surgery than towards the conservative or non-surgical treatment of bone and joint conditions. It deals in a very simple and comprehensive manner with many of the surgical conditions found in this specialty and stresses those methods which are in most common use and which are found to be the most practical. It rightly deals largely with the subject of fractures and their modern treatment, also the mobilization of ankylosed joints by present day modern surgical methods. It is recommended very highly by the reviewer as a ready reference book for most of the strictly surgical conditions arising in the treatment of bone and joint conditions.

JOHN T O'FERRALL, M. D.

Tonsil Surgery: By Robert H. Fowler, M. D. Philadelphia, F. A. Davis Co. 1930. Illus. pp. 288.

When a distinguished English laryngologist, recently addressing an American audience, in a spirit of banter, called us "The kings of tonsil operators," he, nevertheless, expressed a truth. For, if we must accept the authority of European text-books, tonsil surgery, in its refinements of technic, does not receive the minute attention bestowed upon it in this country.

So why wonder that a very remarkable monograph on the tonsil problem, surpassing any previous presentation of this subject ever ancient ever new, is the achievement of an American. Dr. Robert H. Fowler has enriched our literature with his epoch-making contribution on "Tonsil Surgery."

One hundred and two illustrations, some in color, help to clarify and emphasize the well-written text. Twenty chapters are filled to repletion with a wealth of facts, some only known to serious workers, and many more unknown to the so-called "Tonsil snatchers." The plea is for still better tonsillectomies. This goal is only attainable by a specialized anatomical knowledge of the tonsillar region and its surrounding parts. Dr. Wingate Todd has done praiseworthy research work, as reflected in this volume, on the minute anatomy of this area. We have long conjectured that the so-called capsule of the tonsils had muscles attached to it. The research evidence makes it conclusive that the jacket partly enveloping the tonsil is a reflection of the aponeurosis covering the muscles of the tonsillar fossa. The best operative procedure should remove the tonsil with no muscle or tissue attachments. There should remain an intact aponeurotic covering for the muscles surrounding the tonsillar fossa. This makes for less bleeding, less post-operative sepsis, and a better functional result. The removal of the tonsil, and nothing but the tonsil, is re-emphasized by the author.

There are many descriptions of operations by dissection, with, and without, the use of the snare, and by automatic instruments. And yet comes the chastening thought, that no one seems to be obtaining results above criticism. Which means that whatever type of operation is practiced we are still having about a 2 per cent recurrence of post-operative lymphoid tissue in the tonsillar fossa. The infra-tonsillar tissue bears the brunt of the blame for these post-operative lymphoid tissue recurrences. The author advises removal of this tissue by dissection.

We agree with the statement that the coagulation test is only of slight value. We also have found that there is not sufficient correlation between coagulation and bleeding time. We suggest that more research is needed relative to the blood platelets, for these bodies contain the much-desired coagulating elements.

Their presence in large, or small, numbers, is the pre-operative information we are seeking. We become thoughtful when it is asserted that the "hazards of general and local anesthesia are about equal." Suction and an improved technic will reduce the chance of pneumonia. Local, especially, by the deep injections recommended, has been followed by a deep cervical abscess, which is not always a slight complication. Despite the many methods practiced, we must admit our local is still too vocal.

A highly interesting chapter is devoted to focal infection. Statistics and follow-up reports in his series show the frequent relief from rheumatism after tonsillectomy in adults. In the children's group rheumatism and joint pains were complained of in only 1 per cent. We cannot overlook the fact of a cure of 33 per cent in adults. And here alone is sufficient reason for congratulation that this field of surgery can help bring about such brilliant results in a disease which is still baffling the armamentarium of scientific medicine.

We would not presume to question these encouraging results from such an authority, and yet the Medical Research Council of England, and our own serious-minded workers at Cornell or at St. Luke's Hospital, N. Y., have *not* established definitely that pathological tonsils were responsible for "rheumatism." Our own belief and experience is that in certain groups there is a tonsil factor.

This work is intended primarily for the laryngologist. To him it cannot fail to prove informative, and inspirational towards a striving for still safer and better technic. The anatomical drawings and illustrations descriptive of the many types of tonsillectomies, alone are of incomparable value. The publishers have displayed the finest artistry in the book-making itself.

HOMER DUPUY.

Treatment in General Practice: By Harry Beckman, M. D. Philadelphia, W. B. Saunders Co., 1930. Pp. 899.

This excellent volume is a worthy addition to the physician's armamentarium. The palpable neglect of the art and science of therapeusis both at college and in general practice, is the raison d'etre of its being. It is an unusual book. Preceding the therapy of each disease is a summary of the diagnostic findings. Excellent historical notes and statistical studies are also noted. The therapy throughout is either given in quotations from original sources or condensed and abstracted. Editorial comment is made by the author whenever some is justifiable. The author has apparently had a large experience and is seemingly well-versed in his subject. His remarks are good, his knowledge sound and his judgment sane and sensible. In controversial matters, he presents both sides. He has a good sense of humor which is reflected with the interest with which the book holds the reader. The book has been brought up to a very recent date, so that almost all that is new in therapeusis is at least mentioned even if not much elaborated. Excellent special articles on glucose, sepsis and obstetrical subjects are included. A very large bibliography and a complete index are appended. The book's one drawback may prove to be its large size, but as a reference volume its presence is welcome.

I. L. ROBBINS, M. D.

Lectures Upon the Nursing of Infectious Diseases: By F. J. Woollacott, A. M., M. D., B. Ch. Oxon., D. P. H. Rev. and enl. ed. New York, G. P. Putnam's Sons. 1930. pp. 195.

This is a small book intended for nurses, giving brief but concise remarks concerning the infectious diseases, with the measures, both curative and preventive, employed in combatting them. It is a presentation of the art of nursing, well written and worth while.

I. L. ROBBINS, M. D.

Materia Medica and Therapeutics, Including Pharmacy and Pharmacology: By Reynold Webb Wilcox, M. A., M. D., LL. D., D. C. L. 12th ed. rev. Philadelphia, P. Blakiston's Sons & Co., Inc. 1929. pp. 690.

This is a twelfth edition and this fact is proof enough that it has fulfilled its purpose to satisfaction. It is a most complete book and as its title indicates, it covers a vast field. It leaves little to be desired in such a study as it presents.

I. L. ROBBINS, M. D.

Getting Well and Staying Well: By John Potts, M. D. 2d ed. St. Louis, C. V. Mosby Co. 1930. pp. 221.

This is the second edition of an interesting and entertaining book intended for tuberculous patients and doctors. The author claims many changes in this volume but the original scheme and scope of the book is mentioned.

I. L. ROBBINS, M. D.

Aids to Dermatology and Venereal Disease: By Robert M. B. Mackenna, M. A., M. B., B. Ch. Camb., M. R. C. P. Lond., M. R. C. S. Eng. New York, William Wood & Company. 1929. pp. 236.

This compact volume of 236 pages has just about as much real material as the student or practitioner might need. Dr. Mackenna has a manner of putting his material in a concise form, writes one good plan of treatment for each disease discussed and does this in plain understandable English. It, like his volume on skin diseases is a good book to study or for ready reference. There are few illustrations.

M. T. VAN STUDDIFORD, M. D.

Sterilization for Human Betterment: By E. S. Gosney, B. S., and Paul Popenoe, D. Sc. New York, The Macmillan Co. 1929. pp. 202.

This little work constitutes a review of the 6255 sterilizations performed in the California State Hospitals in the twenty years, 1909-29. At the present time, all feeble-minded patients are sterilized before being discharged, as well as one out of every five or six new admissions among the insane. There are three known failures in the male and four in the female, which constitutes a much higher percentage of efficiency than that recorded in other series. There were four deaths in the entire series, two from the anesthetic and two from infection, one of the latter no doubt induced by the patient herself when she tore the dressing from the wound.

No deleterious effects have been noted as far as the patients themselves are concerned, and the authors naturally feel that great good has been accomplished in that those defectives who have been allowed to leave the institution are not bringing into the world more individuals of a like type. They estimate that about 6,000,000 persons in the United States have an intellectuality which is less than 75 per cent of the average, and state that Ohio alone is spending $5,000,000 or more per year in caring for its defectives.

The authors do not think that such sterilization will prevent the birth of genius, as they feel that such an individual is not to be expected from the class of patients under consideration.

The author is an excellent and well written presentation, and is well worth a careful perusal by those interested in the sociological aspects of the question.

E. L. KING, M. D.

Gnyecology for Nurses and Gynecological Nursing: By Comyns Berkley, M. A., M. D., M. C., Cantab., F. R. C. P. Lond., F. R. C. S. Eng. Rev. and enl. ed. New York, G. P. Putnam's Sons. 1930. Pl. illus. pp. 426.

The author's fifth edition, revised, is an excellent text for nurses, clearly written with a brief description of the structures of the pelvis and anatomy of the female genital organs. A general, short outline of physiology and fertilization is included. No subject pertaining to gynecology and obstetrics is omitted. The outline touches on operative technic, duties of nurses in emergencies until the arrival of the physician; detailed description of gynecological and obstetrical nursing are included, giving the preparation of instruments and general hygienic measures pertaining to the duties of nursing.

ADOLPH JACOBS, M. D.

The Treatment of Varicose Veins of the Lower Extremities by Injections: By T. Henry Treves-Barber, M. D., B. Sc. New York, William Wood & Co. 1929. pp. 120.

This is an excellent treatise covering all phases of varicose veins, with special reference to indications for treatment by injection of sclerosing solutions.

All physicians should be familiar with this method of treatment.

As a rule injections are simple and complications minor. Cases will occasionally occur in which quite the opposite is true. It is in these cases that great care and attention should be paid to the details in every respect.

In spite of the advantages this method of treatment offers for the management of varicose veins and their complications, there are some few cases that will derive no benefit from this treatment. It is this type of patient that should be guarded against.

SHIRLEY C. LYONS.

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